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**A MULTIDIMENSIONAL ANALYSIS OF SELF-MUTILATION  
IN COLLEGE STUDENTS**

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IN COLLEGE STUDENTS**

**by  
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**Dissertation**

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## **DEDICATION**

To my dear husband Mick.

I am ever honored and privileged

to be on this journey

with you.

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# **A MULTIDIMENSIONAL ANALYSIS OF SELF-MUTILATION IN COLLEGE STUDENTS**

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The University of Texas at Austin, 2007

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This study explored whether female college students who endorse a history of self-mutilation and those who do not can be reliably differentiated across the following constructs derived from object relations theory: representations of parental care and overprotection, separation-individuation conflicts, emotional body investment, affect regulation, and perceived stress. While these variables have been implicated in the self-mutilation literature, there have been few attempts to empirically assess them. Moreover, there has been very little research investigating self-mutilation in non-clinical, college age youths, despite the reported risk and prevalence of this behavior within the college population.

The operational definition of self-mutilation utilized in this study was borrowed from Favazza (1996) and refers to deliberate, non-suicidal infliction of harm to the body. Self-mutilation was assessed using the Deliberate Self-Harm Inventory (DSHI; Gratz, 2001), from which a group of 85 self-mutilators and a group of 176 non-mutilators were identified. A mixed methods approach was utilized and included the collection of

quantitative data via a secure, online questionnaire, as well as a qualitative interview component with a small number of self-mutilators designed to offer a more complete, phenomenological understanding of this experience.

Logistic regression analyses indicated the following variables were significant predictors of self-mutilation: Mother Care, Father Overprotection, Separation Anxiety, Body Care, and Body Protection. Self-mutilators were more likely to experience their fathers as encouraging of autonomy and to experience separation anxiety compared to non-mutilators. Self-mutilators were also less likely to perceive maternal care as warm and affectionate and less likely to care for and protect their bodies compared to non-mutilators. Qualitative interviews uncovered salient themes related to self-mutilation in this sample. The overall results suggest that object relations may be a useful perspective from which to conceptualize self-mutilation and offer important implications for future research and clinical practice.

## TABLE OF CONTENTS

LIST OF TABLES	xii
CHAPTER I: INTRODUCTION	1
CHAPTER II: REVIEW OF THE LITERATURE	7
Self-Mutilation	7
Prevalence	8
History and Inquiry of Self-Mutilation	10
Categories of Pathological Self-Mutilation	14
Major Self-Mutilation	15
Stereotypic Self-Mutilation	15
Compulsive Self-Mutilation	16
Impulsive Self-Mutilation	16
Correlates of Self-Mutilation	18
Eating Disorders	18
Trauma	19
Borderline Personality Disorder	21
Suicide	22
Summary	23
Self-Mutilation in Adolescence and Early Adulthood	23
Summary	28
Psychological and Behavioral Functions of Self-Mutilation	28
Affect Regulation	29



Depersonalization	30
Biological Factors	31
Social Factors and Contagion	32
Summary	37
Object Relations Theory	37
Object Relations and Early Development	38
Object Relations and Development in Adolescence and Young Adulthood	44
Object Relations and Adolescent Self-Mutilation	48
Summary	55
CHAPTER III: METHOD	57
Purpose	57
Research Questions	58
Recruitment	59
Participants	62
Group Comparisons	65
Instrumentation	65
Procedure	72
Data Analysis	73
CHAPTER IV: RESULTS	78
Self-Mutilating Group	78
Data Screening	81
Factor Analysis	84
Reliability Analysis	89

Analysis of the Data	90
Analysis I	91
Analysis II	94
Combined Model	97
CHAPTER V: THE PHENOMENOLOGY OF SELF-MUTILATION: A CRITICAL REFLECTION OF QUALITATIVE INTERVIEW DATA	101
Recruitment	103
Procedure	105
Participants	107
Qualitative Analysis	109
Triggers to Self-Mutilation	113
Functions of Self-Mutilation	115
Feelings About Self-Mutilation	122
Scars	123
Others' Reactions to Self-Mutilation	124
Self-Mutilation and the College Experience	129
Co-Occurring Self-Harm Behaviors	131
Professional Response	132
Correcting Myths and Misunderstandings about Self-Mutilation	134
Self-Mutilation and Suicide	136
Looking Toward the Future	137
Summary	139
CHAPTER VI: DISCUSSION	142

Clinical Implications	151
Limitations	153
Future Research	157
APPENDICES	161
Appendix A: Recruitment Flyer	162
Appendix B: Measures	163
Appendix C: Online Consent Form and Instructions	174
Appendix D: DSHI Item 17 Endorsements	180
Appendix E: Correlation Matrix	181
Appendix F: Factor Analysis: Additional Output	183
Appendix G: Logistic Regression: Additional Output	187
Appendix H: Interview Cover Letter and Consent Form	188
Appendix I: Sample Interview Questions	195
Appendix J: Interview Matrix	196
REFERENCES	197
VITA	208

## **LIST OF TABLES**

Table 1:	Responses to Demographic Questionnaire by Group	63-64
Table 2:	Endorsements of Self-Mutilating Group on DSHI Items	79
Table 3:	Mean Age of Onset for DSHI Items	80
Table 4:	Intercorrelations Among BIS Factors, Four Factor Solution	87
Table 5:	Rotated Factor Loadings of BIS Items, Four Factor Solution	88
Table 6:	Internal Consistency Estimates for Predictor Variables	89
Table 7:	Logistic Regression Analysis I: Group Membership as a Function of Intrapsychic Variables	93
Table 8:	Logistic Regression Analysis II: Group Membership as a Function of Behavioral/Symptomatic Variables	96
Table 9:	Logistic Regression Analysis: Group Membership as a Function of Combined Variables, Outliers Retained	98
Table 10:	Logistic Regression Analysis: Group Membership as a Function of Combined Variables, Outliers Removed	98

## **CHAPTER I**

### **INTRODUCTION**

If you can imagine fighting your way through a howling gale and then stepping into a soundproof room and shutting the door, then I can begin to describe the transition wrought by the stroke of the razor. One moment, chaos; the next, rich exquisite silence (Kettlewell, 1999, p. 101).

Self-mutilation refers to the deliberate infliction of harm to the body without conscious suicidal intent (Favazza, 1996). Self-mutilation covers a wide range of behaviors from making cuts on the skin to burning and bone breaking. This behavior has been observed within clinical and non-clinical groups and is associated with a variety of psychological symptoms and disorders. Researchers generally agree the onset of self-mutilation typically occurs sometime during adolescence and that the behavior often persists over a period of several years (Alderman, 1997; Favazza, 1996). After reviewing numerous studies of self-mutilation, Pattison and Kahan (1983) concluded that peak incidence of the behavior occurs between the ages of 16 to 25. As such, late adolescents and young adults appear to be at increased risk for this behavior. Indeed, the prevalence rate of self-mutilation within college samples has been found to range anywhere from 12-38% (Favazza, 1992; Favazza, DeRosear, & Conterio, 1989; Gratz, Sheree, & Roemer, 2002; Whitlock, Eckenrode, & Silverman, 2006).

Despite these high estimates, there are surprisingly few published studies exploring this phenomenon during the college years. The importance of investigating self-mutilation in non-clinical groups, and in particular among college students, is underscored by the fact that the behavior is often kept hidden with many self-mutilators never seeking treatment (Conterio & Lader, 1998). Furthermore, constructs that have

been theoretically implicated in adolescent self-mutilative behavior, such as conflicts over separation-individuation, have been shown to remain salient among college age youths and to predict college adjustment (Hoffman, 1984; Holmbeck & Leake, 1999; Rice, Cole, & Lapsley, 1990).

A primary purpose of this study was to contribute to a deeper understanding of self-mutilation as it occurs during the developmental period spanning late adolescence and early adulthood, with particular emphasis on the relationship of this behavior to a number of constructs derived from object relations theory. Broadly speaking, object relations theory offers interesting insight into self-mutilation in its consideration of the intrapsychic, interpersonal, and developmental influences on this behavior. The theory also emphasizes the role of bodily experience in self development, rendering the relationship between intrapsychic processes and the “symptomatic body,” as seen in self-mutilation, particularly intriguing.

From this theoretical perspective, self-mutilation is understood as a manifestation of distorted self-other representations rooted in early experience with primary caregivers (Farber, 2000; Krueger, 1989). Many studies suggest quality of caregiving, particularly in early childhood, is an important factor in subsequent self-harm (Simpson & Porter, 1981; van der Kolk et al., 1991; Walsh & Rosen, 1988). Child-caregiver bonds characterized by chronic failures in attunement, over-intrusiveness, and neglect, for example, are said to contribute to inadequate negotiation of early separation-individuation tasks. Moreover, difficulties in the initial separation-individuation process are believed to compound one’s ability to effectively master development in later stages, particularly the resurgence of separation-individuation tasks that characterize adolescence

(Blos, 1967; Mahler, Pine, & Bergman, 1975). When self and other are not sufficiently differentiated, the maturational push toward separation during adolescence can threaten fragmentation and loss of identity. Adolescent self-mutilation is seen as an enactment of this conflict.

Disturbances in early caregiving and separation-individuation are thought to impede the internalization of self-care ego functions as well as the ability to use symbolic language to verbalize feeling states. Such experiences can lead to poor body boundaries and difficulty forming an accurate mental representation of one's own body, and in turn one's psychological sense of self (Krueger, 2002). Thus, with no stable internal structure in place to regulate and contain one's feelings and experiences, there is no base from which to form a cohesive sense of identity. In combination, these factors are believed to impede the capacity for adaptive affect regulation, thereby reducing one's ability to effectively cope with life stressors. Self-mutilation is seen as a highly effective means of affect regulation in the absence of internalized self-soothing capacities and reflects a lack of healthy investment in the body (Farber, 2000; Graff & Mallin, 1967; Himber, 1994). Moreover, self-mutilation has been associated with a culmination of stressful life events, suggesting it is a method of coping with complex intrapsychic experiences and external stressors (Ross & Heath, 2002; Whitlock, Powers, & Eckenrode, 2006).

While many scholars have leaned on object relations theory in an attempt to better understand self-mutilation, there have been few attempts to empirically validate these theoretical ideas. The purpose of this study was to investigate the relationship between self-mutilation and the following variables: parental bonding, separation-individuation, emotional body investment, emotion regulation, and perceived stress. These variables are

implicated in object relations theory and to a greater or lesser extent in self-mutilative behavior. Because the majority of studies within the self-mutilation literature have been conducted on clinical samples, it remains unknown if these constructs are salient among non-clinical groups of self-mutilators. The current study investigated whether self-mutilators are more likely to report different experiences across these variables compared to non-mutilators. In addition, qualitative interviews were conducted to offer a deeper understanding of the phenomenology of the behavior within this population.

Self-mutilation was assessed using the Deliberate Self-Harm Inventory (Gratz, 2001). Self-mutilating and non-mutilating groups were formed based on responses to this instrument. Participants' representations of their parents and perceived parental care were assessed using the Parental Bonding Instrument (Parker, Tupling, & Brown, 1979). The Separation Individuation Test of Adolescence (Levine, Green, & Millon, 1986) was used to assess the presence of early separation-individuation conflicts as they are expressed during adolescence. Orbach and Mikulincer's (1998) Body Investment Scale was used to measure participants' attitudes, feelings, and emotional investment in their physical selves. The Emotion Regulation Questionnaire (Gross & John, 2003) was administered to assess preferred methods of responding to emotions. Finally, subjective stress was assessed using the Perceived Stress Scale (Cohen, Kamarck, & Mermelstein, 1983). Interview material was transcribed and analyzed using a phenomenological methodology.

For the purpose of this study, the term adolescence was afforded a flexible definition and was assumed to encompass a maturational process rather than a discrete time period. The emphasis on education and the delayed assumption of traditional adult



roles in the U.S. and most Western cultures has led to the notion of extended adolescence, beginning at about ten or eleven years of age and stretching into one's early to mid 20's (Elliott & Feldman, 1990). It therefore seems reasonable to conceptualize the college years as spanning late adolescence and the beginnings of adulthood. Although there are numerous literature accounts of adolescent self-mutilation (mostly among inpatient samples) (Crouch & Wright, 2004; Daldin, 1988; Doctors, 1981; Darche, 1990; Ross & McKay, 1979), the occurrence of self-mutilation in college students is markedly understudied. This is especially surprising given the fact that the college years appear to be particularly conducive to self-mutilation, with decreased adult supervision, the stress of adjusting to life beyond the structure of the family, and the complexities of forming more mature relationships. The reported incidence of self-mutilation in adolescents and college students and the obvious physical and psychological risks the behavior presents, render this an important topic of investigation. This dissertation reports the results of an attempt to lend empirical support to theoretical conceptualizations of self-mutilation, while also extending understanding of the experience of self-mutilation among college women in an effort to inform the assessment and treatment of this behavior.

The following chapter provides a more thorough discussion of the documented features and functions of self-mutilation, object relations theory, developmental issues in adolescence and young adulthood, and the ways in which these ideas have been implicated in self-mutilative behavior. Chapter III outlines the research methodology and further describes the measures used in this study. Readers will find a discussion of the statistical analyses in Chapter IV and a critical analysis of the qualitative interviews in

Chapter V. The discussion and conclusive statements about this study and its implications are included in Chapter VI.

## **CHAPTER II**

### **REVIEW OF THE LITERATURE**

Reviews of the following areas are included in this chapter: (a) the continuum of self-mutilative behavior with an overview of the study of this phenomenon and descriptions of various categories of maladaptive self-mutilation, (b) predictors and risk factors for self-mutilation among adolescents, (c) the psychological and behavioral functions of self-mutilation, and (d) object relations theory, with subsections on the developmental tasks of early childhood, adolescence, and young adulthood, as well as conceptualizations of self-mutilation from an object relations perspective.

#### **Self-Mutilation**

Self-mutilation is a complex and mysterious phenomenon that, despite increasing recognition by clinicians and researchers, is frequently misunderstood. Generally speaking, self-mutilation refers to the “direct and deliberate destruction or alteration of one’s own body tissue without conscious suicidal intent” (Favazza, 1996, p. 225). The behavior exists on a continuum ranging from culturally accepted rituals and practices to self-directed mutilative behavior that is considered deviant by a given culture or society. Maladaptive self-mutilation usually manifests as deliberate self-cutting or burning, typically on the wrists and arms, although research indicates the legs, abdomen, head, chest, genitals and facial features have also been targeted (Briere & Gil, 1998; Favazza, 1992; Favazza, 1989). To those on the outside, this form of self-mutilation is puzzling and frequently provokes fear and disgust, though it often holds personal meaning to those who engage in it (Bach-y-Rita, 1974; Rosen, Walsh, & Rode, 1990).

Unlike many culturally sanctioned forms of self-mutilation, bound in space and time by collective ritual, maladaptive self-mutilation often occurs over multiple episodes and may persist over several years. Moreover, this type of self-mutilation is often conducted in private and kept hidden from others. Rather than bringing individuals together, the behavior can lead to increased feelings of isolation, alienation, and shame (Alderman, 1997). Numerous accounts in the literature reflect a strong association between this type of self-mutilation and a variety of psychological disorders and subjective reports of distress. Common motivating factors for this behavior include the expression or control of emotions and needs, ending states of depersonalization, affirming physical and psychic boundaries, reducing tension, and as a response to peer group influences and social reinforcement (Suyemoto, 1998).

### **Prevalence**

Literature suggests the incidence of self-mutilation is steadily increasing, although the precise prevalence of the behavior is difficult to assess (Conterio & Lader, 1998; Fowler, Hilsenroth, & Nolan, 2000; Walsh & Rosen, 1988). Assessment is complicated by the fact that many persons who self-harm do so in secret and do not seek treatment, causing the behavior to go unreported. Research studies are also inconsistent in their definition of self-mutilation, tending to be either over-inclusive (e.g., including cases of overdose and poisoning) or under-inclusive (e.g., only including wrist cutting). Likewise, studies extracting prevalence rates from police reports and emergency room records may only account for incidents of self-injury that are severe enough to require professional intervention. Further complicating matters is the fact that some studies do not distinguish between different categories of self-mutilation among subjects (e.g., failing to

discriminate between severe acts, such as self-inflicted amputation, versus repetitive, superficial self-cutting), while others fail to distinguish between non-suicidal self-harm and genuine suicide attempts.

In examining studies utilizing a clear definition of self-mutilation in line with that previously offered by Favazza (1996), variable prevalence rates emerge. For instance, Favazza and Conterio (1988) estimated self-mutilation to occur in 750 per 100,000 persons in the general population, while Walsh and Rosen (1988) estimated the prevalence of self-mutilation to be anywhere between 14-600 people per 100,000 per year. More recent studies identified deliberate self-harm to occur in four percent of non-clinical samples (Briere & Gil, 1998; Klonsky, Oltmanns, & Turkheimer, 2003). The occurrence of intentional self-harm in the clinical population (outpatient and inpatient) is believed to range anywhere from three to twenty-one percent (Ballinger, 1971; Briere & Gil, 1998; Darche, 1990; Favazza & Conterio, 1988). Briere and Gil (1998) found no differences in the rate of self-injury between inpatient and outpatient clinical samples.

Reports of deliberate self-harm among college students range anywhere from 12-17% (Favazza, 1992; Favazza et al., 1989; Whitlock, Eckenrode, et al., 2006) to an alarming 38% (Gratz et al., 2002). The most comprehensive of these studies (incidentally the largest study of self-mutilation in the U.S.) surveyed 2,875 randomly selected undergraduate and graduate students at two northeastern universities and found 17% endorsed a history of self-mutilation (20% female, 14% male), with nearly 42% of the sample indicating the onset of self-injury occurred between the ages of 17 to 22 (Whitlock, Eckenrode, et al., 2006). Based on their study utilizing a community sample, Muehlenkamp and Gutierrez (2004) estimated 15% of adolescents in non-clinical settings

engage in self-harm without suicidal intent. The rate of adolescent self-mutilation in institutional settings has been estimated to be as high as 40-61% (DiClemente, Ponton, & Hartley, 1991; Pattison & Kahan, 1983).

While self-mutilation is generally perceived to be a predominantly female problem (likely rooted in early, descriptive studies on inpatient samples) recent studies have found no gender differences in this behavior (Briere & Gil, 1998; Gratz, 2001; Gratz et al., 2002; Klonsky et al., 2003; Muehlenkamp & Gutierrez, 2004). The majority of self-mutilators seen in treatment, however, are female (Conterio & Lader, 1998; Darche, 1990; Favazza et al., 1989; Herpertz, 1995), while an increased rate of self-mutilation in men has been documented among incarcerated populations (Bach-y-Rita, 1974; Turner, 2002). Phenomenological and functional differences between male and female self-mutilators, however, have not yet received much attention from researchers. Some research suggests a potential relationship between self-mutilation and sexual orientation, with self-mutilators found to be more likely to identify as bisexual or unsure of their sexual orientation compared to non-mutilators (Fennig, Carlson, & Fennig, 1995; Whitlock, Eckenrode, et al., 2006).

### **History and Inquiry of Self-Mutilation**

Illustrations of self-mutilative behavior can be traced back to ancient times. In the literary example of Sophocles' *Oedipus Rex*, for instance, the protagonist blinds himself after unwittingly killing his father and marrying his mother (Favazza, 1996). Numerous biblical references also reflect the longevity of this phenomenon. In the Old Testament, the prophets of Baal, when confronted by Elijah, are said to have "cried aloud, and cut themselves after their manner with knives and lancets, until the blood gushed out upon

them” (1 Kings 18: 28, King James Version). Similarly, in the Gospel of Mark, Jesus is said to have met a man with an unclean spirit who cuts himself with stones (Favazza & Conterio, 1988).

In his comprehensive book *Bodies Under Siege: Self-Mutilation and Body Modification in Culture and Psychiatry*, Armando Favazza (1996) accounts for the universality of self-mutilation, detailing mutilative beliefs, attitudes, practices, and images across cultures, drawing examples from religion, secular art, literature, customs of warfare, myths of creation, Shamanism, and healing traditions. Among these accounts include: the mutilative imagery of the Hindu goddess Kali Ma; apotemnophilia (a paraphilia featuring sexual stimulation and the desire for limb amputation); a head slashing healing ritual among the Sufi brotherhood Hamadsha; finger amputation to signify mourning in the Dugum Dani tribe of New Guinea; and the counterculture Modern Primitive movement in which extreme forms of body modification such as branding, flagellation, and the suspension of the body by hooks are publicly performed for the purpose of spiritual transformation, personal expression, and healing.

Through these diverse examples, Favazza (1996) helped to clarify the continuum of self-harm by distinguishing between ritualistic self-mutilation, mutilative practices or fads, and pathological self-mutilation. Ritualistic self-mutilation refers to behavior that is consistently repeated over several generations and symbolizes the traditions and beliefs of a society. For example, mutilative rituals, as seen in scarification, tribal healing ceremonies, and initiation rites are embedded with deep meaning and are performed for the unifying purpose of instilling healing, spirituality, and social order (Favazza, 1996). Less ritualized but still culturally sanctioned practices include behaviors or fads that may

have little underlying collective meaning, such as piercing, tattoos, and body modification, as seen in elective plastic surgery. As alluded to in the previous section, self-mutilation is considered pathological when it is deemed socially unacceptable and is not practiced by large segments of society. The importance of culture in determining whether a particular behavior is pathological cannot be overemphasized. As Favazza noted, psychiatrists in India rarely report self-mutilation as a symptom of mental illness.

Within western culture, clinicians and theorists alike have long been interested in self-mutilative behavior that is positioned along the deviant, pathological end of the continuum. Karl Menninger's *Man Against Himself* (1938) was one of the first major publications on self-mutilation. In this book, Menninger proposed that self-mutilation involves the focusing of suicidal impulses on part of the body rather than the whole body. In this way, self-mutilation is seen as an attenuated form of suicide and a means of averting ultimate self-destruction. Menninger was the first to begin to recognize the distinctions between suicide and self-mutilation, conceptualizing the latter as an attempt at self-healing and a compromise between life and death instincts. He also offered the first attempt to categorize self-mutilative behaviors, emphasizing the need to assess the degree of psychological and physiological dysfunction, the meaning of self-harm within the individual's cultural context, the degree of self-harm and its location on the body, and the psychodynamic formulations behind this behavior. Menninger raised questions that researchers today still grapple with, such as understanding the intent of this behavior, its chronic repetition, and the problem of self-mutilation epidemics within groups (Walsh & Rosen, 1988).



A surge of psychoanalytic case reports and descriptive studies in the 1960's and 1970's explored developmental issues inherent in self-mutilation (at the time commonly referred to as the "wrist cutting syndrome" or "delicate self-cutting"), tracing the behavior to insufficient negotiation of early childhood separation-individuation tasks, with particular attention to the manner in which these conflicts are enacted during adolescence (Asch, 1971; Graff & Mallin, 1967; Grunebaum & Klerman, 1967; Kafka, 1969; Miller & Bashkin, 1974; Pao, 1969; Podvoll, 1969; Rosenthal, Rinzler, Walsh, & Klausner, 1972; Siomopoulos, 1974). Subsequent studies have offered empirical evidence for childhood and clinical correlates of self-mutilation, with particular emphasis on the relationship between self-mutilation and trauma (Connors, 1996; Favazza & Conterio, 1988; Himber, 1994; Rosen et al., 1990; Walsh & Rosen, 1988; van der Kolk et al., 1991). Some researchers view self-mutilation predominantly as a symptom of Borderline Personality Disorder (Brown, Comtois, & Linehan, 2002), while others include it as a variant of suicidal behavior (Fox & Hawton, 2004). Efforts have also been put forth to begin investigating the biochemical bases and correlates of self-mutilation, although research in this area remains limited (Simeon et al., 1992; Winchel & Stanley, 1991).

Despite these varied approaches to the study of self-mutilation, ongoing methodological problems have complicated research in this area, resulting in little uniform agreement about the explanation, prevention, or treatment of this behavior. One such problem is a lack of clear terminology and definition of self-mutilation. Deviant forms of self-mutilation have been documented under numerous terms including: auto-aggression, intentional injury, symbolic wounding, malingering, deliberate self-harm,

self-abuse, local self-destruction, delicate self-cutting, self-injurious behavior, aggression against the self, parasuicide, attempted suicide, and partial suicide (Favazza, 1996; Pao, 1969; Pattison & Kahan, 1983; Ross & McKay, 1979). Inconsistent operational definitions of self-mutilation have led to conceptual confusion and resulted in information being buried in literature on suicidal phenomena (Simpson & Porter, 1981; Walsh & Rosen, 1988). Variations in sampling methods, discrepant instrumentation, and the ethical barriers inherent in the study of this behavior have complicated matters. In fact, it was only in 2001 that an empirical measure utilizing a clear conceptual and operational definition of self-harm was produced (Gratz, 2001). The secretive and stigmatized nature of the behavior also interferes in the recruitment of research subjects. Nevertheless, persistent reports of self-mutilation within the clinical and general population and the associated risks of this behavior warrant continued research into this phenomenon.

### **Categories of Pathological Self-Mutilation**

Recently, efforts have been made to categorize self-mutilation according to the degree of bodily harm inflicted and the rate and pattern of the behavior. Four types of self-mutilation have been proposed, with the first three being tied to specific psychological disorders (Simeon & Favazza, 2001). These categories are major, stereotypic, compulsive, and impulsive self-mutilation. A brief description of these categories follows. It is the final category of impulsive self-mutilation that is the focus of this research.

### **Major Self-Mutilation**

The most infrequent form of self-mutilative behavior is major self-mutilation, which includes acts that incur a significant amount of damage to body tissue, such as eye enucleation, castration, and limb amputation. Major self-mutilation can be life-threatening and often results in irreversible bodily damage. This form of self-harm also tends to occur in isolated incidents, rather than as a repetitive pattern of behavior. It is often associated with psychotic disorders and corresponding delusions and hallucinations (Walsh & Rosen, 1988). Major self-mutilation is also associated with intoxication, depression, mania, personality disorders, and transsexualism (Simeon & Favazza, 2001). Furthermore, the thematic content of this type of self-harm is typically religious or sexual in nature. Within this subgroup, self-mutilation may be performed in an effort to secure personal salvation or as an expression of religious sacrifice. The first clinical case report of self-mutilation, believed to have been published in 1846, may very well have been a case of major self-mutilation. This incident involved a 48-year-old widow, reportedly suffering from manic depression, who gouged out her own eyes to keep herself from admiring other men, thereby committing a sin (Favazza, 1998).

### **Stereotypic Self-Mutilation**

Stereotypic self-mutilation is most commonly exhibited in head-banging, biting, scratching, punching and similar acts which are often rhythmic and repetitive in nature. These behaviors involve a fixed pattern of expression and tend to convey no apparent symbolic meaning. Stereotypic self-mutilation usually occurs in the presence of others and may occur multiple times per day, resulting in mild to serious consequences including cuts, infection, and possible blindness (Stein & Niehaus, 2001). The purpose

of stereotypic self-mutilation is to seek attention as well as to respond to immediate environmental influences, such as under-stimulation, and to communicate frustration and anger in the absence of expressive language skills. This form of self-mutilation is often explained in behavioral terms, such as learned operant behavior and reinforced attention seeking, although it likely involves a more complex interplay between environmental and organic factors (Walsh & Rosen, 1988). Stereotypic self-mutilation is most commonly associated with mental retardation, autism, and other developmental disorders including Lesch-Nyhan syndrome, Cornelia de Lange syndrome, and Prader-Willi syndrome and is often referred to as “self-injurious behavior” in the clinical literature (Favazza, 1996; Simeon & Favazza, 2001).

### **Compulsive Self-Mutilation**

The compulsive subtype of self-mutilation features ritualistic acts that occur multiple times per day. It typically incurs mild to moderate damage and is often engaged in without conscious awareness (Favazza, 1996). The habitual and chronic nature of compulsive self-mutilation can induce considerable distress and may lead to disfigurement (Simeon & Favazza, 2001). Examples include trichotillomania (compulsive hair pulling), chronic and extensive onychophagia (nail biting), and onychotillomania (compulsive skin picking and scratching). Compulsive self-mutilation is also associated with stereotypic movement disorders and Tourette’s Disorder.

### **Impulsive Self-Mutilation**

The scope of this research is limited to the final category of impulsive self-mutilation. This is the most common form of self-mutilation, encompassing a variety of behaviors such as skin cutting, burning, carving, interfering with wound healing, bone

breaking, self-hitting, and needle sticking (Favazza, 1996; Simeon & Favazza, 2001). Excluded from this definition are suicide attempts and indirect self-harm such as starvation, bingeing and purging, self-poisoning, swallowing objects, substance abuse, and reckless behavior. Impulsive self-mutilation can be episodic or repetitive and results in relatively low lethality or tissue damage. Episodic self-mutilation refers to the fact that it occurs every so often among individuals who may not self-identify as “cutters” or “burners.” Repetitive self-mutilation ensues when it becomes a primary preoccupation and the individual adopts an identity as a cutter or burner, with the possibility of feeling addicted to the behavior. A lack of longitudinal studies has limited knowledge of the course of this type of self-mutilation. Alderman (1997), however, indicates self-mutilation typically begins in adolescence, peaks in one’s mid-20’s, and usually stops in one’s 30’s, often independent of intervention. This is consistent with Favazza’s (1996) observation that chronic self-mutilation usually persists ten to fifteen years.

Impulsive self-mutilation is often replete with personal, symbolic meaning and involves a complex sequence of events, including the use of selected instruments and tools. Specific rituals and preferences around the injurious act may develop. For instance, self-mutilation may occur in specific environments, at certain times of the day, and using particular instruments. The procedure of preparing for and performing the act, as well as tending to the self-inflicted wound may also invoke a ceremonial quality. Other acts of self-injury, however, may be performed immediately in response to a triggering event, without elaborate preparation or planning. Many individuals who engage in self-mutilation report no pain during the injurious act, although some report pain after the act has been committed (Bach-y-Rita, 1974; Gardner & Gardner, 1975,

Grunebaum & Klerman, 1967; Herpertz, 1995; Nock & Prinstein, 2005). The presence of analgesia is often attributed to a form of dissociative process. Self-mutilation is a private behavior that most often occurs alone and is kept secret. Shame related to scars, wounds, powerlessness to control self-harm, and the stigmatized nature of the behavior often perpetuate this cycle and contribute to increased feelings of alienation (Alderman, 1997; Himber, 1994).

### **Correlates of Impulsive Self-Mutilation**

Impulsive self-mutilation is considered a multi-determined behavior that occurs in a number of contexts by a heterogeneous group of people. The behavior is associated with a variety of psychological symptoms and disorders including personality disorders, dissociative disorders, Posttraumatic Stress Disorder, depression, eating disorders, and substance abuse (Favazza et al., 1989; Zlotnick, Mattia, & Zimmerman, 1999). Even among non-clinical groups, impulsive self-mutilators have been found to exhibit significantly more symptoms of Borderline, Schizotypal, Dependent, and Avoidant Personality Disorder as well as increased symptoms of anxiety and depression when compared to non-mutilators (Klonsky et al., 2003). After reviewing 56 cases of the behavior, Pattison and Kahan (1983) identified despair, anxiety, anger, and cognitive restriction as primary psychological symptoms of self-mutilation.

### **Eating Disorders**

Numerous researchers note the co-occurrence of self-mutilating behavior, eating disorders, and related problems (Farber, 2000; Pao, 1969; Rosenthal et al., 1972; Gardner & Gardner, 1975; Sansone & Levitt, 2004; Simpson & Porter, 1981). In Favazza and Conterio's (1989) study of 240 self-mutilating females, 61% reported a current or past

eating disorder, including anorexia, bulimia, and obesity. Conterio and Lader (1998) estimate about 40% of bulimics and 35% of anorexics have also engaged in self-mutilative behavior. In a comparison of hospitalized female adolescents, Darche (1990) discovered self-mutilators experienced significantly more symptoms of anorexia, bulimia, and compulsive overeating than non-mutilators. Dissatisfaction with body parts, particularly sex organs, and bodily discomfort, are common among self-mutilators (Favazza, 1992). Favaro, Ferrara, and Santonastaso (2004) suggest eating disorders and self-mutilation share similar phenomenology, noting the commonalities of adolescent onset, prevalence among women, presence of body dissatisfaction, and the self-punitive nature of the symptoms. Others have discussed the possibility of symptom substitution, such that when one symptom lessens, the other becomes more prominent (Yaryura-Tobias, Neziroglu, & Kaplan, 1995). This observation has led some writers to question if self-mutilation and eating disordered symptoms are interchangeable (Favazza et al., 1989; Sansone & Levitt, 2004)

### **Trauma**

The behavior is also associated with a childhood history of sexual abuse, particularly among women, as well as physical abuse, parental neglect and familial separation (Briere & Gil, 1998; van der Kolk et al., 1991). Favazza (1992) estimated about 62% of self-mutilating women within the clinical population report physical or sexual abuse in childhood. In a large sample of female self-mutilators, Favazza and Conterio (1989) found 29% reported a history of sexual and physical abuse, 17% reported sexual abuse, and 16% reported physical abuse in childhood. In another large study of female inpatients, self-mutilators reported a greater frequency of childhood sexual abuse,

dissociative symptoms and alexithymia than non-mutilators (Zlotnick et al., 1996). This study also concluded that dissociation and alexithymia are independently related to self-harm.

In a study of 74 subjects with personality disorders or Bipolar II Disorder, van der Kolk et al. (1991) found cutting behavior to be strongly associated with pervasive dissociation, a relationship that did not similarly apply to suicide attempts and other forms of self-harm. Moreover, within this sample, neglect was the strongest predictor of cutting behavior. The age at which trauma occurred influenced the severity and type of self-destruction employed, with early trauma associated with increased cutting. Other traumatic experiences, such as illness or invasive surgery during childhood, have also been associated with subsequent self-mutilation in adolescence (Doctors, 1981; Rosenthal et al., 1972; Walsh & Rosen, 1988).

Despite the aforementioned findings, it remains unclear how specific types of childhood trauma contribute to the development of self-mutilation. Simeon and Favazza (2001) speculate that “various trauma induced or trauma-facilitated dysregulations, poor impulse control, dissociation, and poor modulation of aggression” mediate the relationship between childhood trauma and subsequent self-mutilation (p. 21). Others have suggested it is not the occurrence of abuse itself that poses risk for self-mutilation, but rather the entirety of the family context and a subsequent lack of interpersonal attachments and emotional support (Farber, 2000; Tantam & Whitaker, 1992; van der Kolk et al., 1991).



## **Borderline Personality Disorder**

Borderline Personality Disorder (BPD) is the diagnosis most commonly associated with self-mutilation, owing in part to the fact that self-mutilating behavior, along with recurrent suicidal behavior, are among the nine diagnostic criteria for this disorder (five or more of which are required for diagnosis) (American Psychiatric Association, 2000). In addition to self-mutilation and suicidal gestures, BPD is characterized by the following symptoms: chaotic interpersonal relationships; frequent impulsive behaviors (e.g., substance abuse, bingeing); affective lability; intense negative emotions; chronic feelings of emptiness or boredom; abandonment fears; and identity disturbance (Ivanoff, Linehan, & Brown, 2001; Walsh & Rosen, 1988). BPD is also associated with periodic dissociation, childhood abuse, and neglect (Favazza, 1996). Eighty percent of individuals with this diagnosis report having engaged in some form of self-injury more than once (Shearer, Peters, Quaytman, & Wadman, 1988). It should be noted, however, that the literature on BPD frequently uses the term *parasuicide* to refer to all nonfatal acts of self-harm regardless of intent, including suicide attempts and non-suicidal self-mutilative behaviors (Linehan, 1995), which blurs attempts to distinguish between various types of self-harm.

Despite this definitional problem, self-mutilation appears to be quite common among persons with BPD. Similarly, self-mutilators may exhibit variants of BPD symptoms, particularly the co-occurrence of other impulsive behaviors. To assume, however, that all persons who self-mutilate have BPD seems a hasty conclusion. Research has shown that biases regarding self-mutilation and personality disorders such as BPD have important implications for the treatment and advancement in understanding

of this behavior. For instance, Tantam and Whitaker (1992) observed that when self-harm is attributed to a personality disorder, the responses of clinicians and caretakers are “blunted” and there is often no additional inquiry into the meaning of the symptom or the events leading up to the behavior. Research has also demonstrated independent relationships between self-mutilation and common correlates of BPD. In an empirical study with a large sample, Zlotnick et al. (1999) found a strong association between self-mutilation and dissociation, even when controlling for BPD and history of childhood abuse.

### **Suicide**

Generally speaking, self-mutilation is considered distinct from suicide as it is low in lethality, there exists no conscious intent to die, and it occurs in more of a repetitive pattern with the self-injurer frequently employing multiple methods of self-harm (Walsh & Rosen, 1988). While this does not exclude self-mutilators from the risk of suicide, the qualitative differences between the two behaviors are important, especially in light of the fact that many self-mutilators are a low suicide risk (Ross & McKay, 1979). Moreover, even among self-mutilators with co-occurring issues of suicidality, it is possible to distinguish between self-harm and suicidal gestures (Himber, 1994; Solomon & Farrand, 1996). In a study of nearly 400 high school students, Muehlenkamp and Gutierrez (2004) found adolescents reporting a history of suicide attempts exhibited significantly more negative attitudes toward life than non-suicidal adolescents with a history of self-injury. Favazza (1996) concluded that while suicide is a form of escape or an attempt to put an end to all feelings, self-mutilation represents an effort to promote healing and feel better. Favazza and Conterio (1989) suggested, however, that suicidal risk may increase among

self-mutilators who experience despair related to their sense of powerlessness over their self-harm behavior.

### **Summary**

The preceding section introduced the continuum of self-mutilative behavior, distinguishing socially sanctioned rituals and practices involving mutilative elements from maladaptive mutilative gestures that are performed in response to internal conflict and psychological distress. The prevalence rates of this latter form of self-mutilation were offered, signifying that this behavior occurs in both clinical and non-clinical groups and appears to be most frequent among adolescents and young adults. Historical references to the longevity of self-mutilation were discussed, as well as the history of inquiry into this phenomenon. Next, various categories of maladaptive self-mutilation were outlined. These include major, stereotypic, compulsive, and impulsive forms of self-mutilation. It is the final category that is of interest in this study. Impulsive self-mutilation refers to non-lethal, repetitive acts of self-harm that typically result in minimal tissue damage, such as self-cutting. Evidence for the association between self-mutilation and a number of psychological conditions was presented.

### **Self-Mutilation in Adolescence and Early Adulthood**

A number of studies identify adolescence as the typical time of onset for self-mutilation (Favazza & Conterio, 1988; Suyemoto & MacDonald, 1995). While the average age of onset varies from study to study, researchers generally agree that adolescence and young adulthood are times of increased risk for this behavior, with the peak incidence estimated to occur between the ages of 16 and 25 (Pattison & Kahan, 1983). Through extensive clinical work in a program specifically designed to treat self-

mutilation, Conterio and Lader (1998) have observed the onset of adolescent self-injury to be triggered by different experiences, including accidental cuts that bring emotional relief, experiences with piercing, spontaneous gestures, and hearing about the behavior from others or through the media. Alderman (1997) indicated that for many, the initiation into self-mutilative behavior is difficult to recall and there is often no definitive event that can be identified.

Various stressful life events during childhood have been found to be associated with self-mutilation in adolescence and young adulthood. For instance, Walsh and Rosen (1988) found the experience of childhood loss and physical and sexual abuse to be the strongest historical predictors of subsequent self-mutilation among a sample of adolescents in residential treatment (ages 15-21). Within their sample, self-mutilators were more likely to have experienced “lingering loss” in childhood, such as parental divorce or separation from family (e.g., placement in group home), while parental death was not found to be significantly related to self-mutilation. Others have also observed that self-mutilators frequently come from unstable family backgrounds where, in addition to physical and sexual abuse, experiences of neglect and exposure to marital violence are common (Simpson & Porter, 1981; van der Kolk et al., 1991; Walsh & Rosen, 1988). Childhood sexual abuse was particularly implicated among a sample of female adolescent self-mutilators (Darche, 1990), while repeated sexual victimization during adolescence was associated with cutting behavior in a clinical sample of 12-21 year olds (DiClemente et al., 1991). Additionally, self-mutilation has been associated with a history of illness or surgery during childhood (Kafka, 1969; Rosenthal et al., 1972; Walsh & Rosen, 1988).

Walsh and Rosen (1988) also found that losses during adolescence (e.g., break up of peer relation, relocation, separation from family) occurred more frequently in the lives of self-mutilators versus non-mutilators and often triggered deliberate self-injury. In a longitudinal study, Rosen et al. (1990) found that the frequency of self-mutilation in adolescent inpatients (ages 14-21) significantly increased during periods of anticipated loss two weeks prior to staff members terminating employment. This finding was striking given that a similar pattern was not observed for other types of acting out, such as aggression and running away. The authors contended that interpersonal loss, particularly the *anticipation* of such loss, may trigger self-mutilative behavior. Moreover, they emphasized the frequent childhood losses these adolescents endured, suggesting the threat of subsequent losses was felt as a repetition of these early, painful experiences.

Numerous studies suggest self-mutilators experience difficulty with interpersonal relationships (Crouch & Wright, 2004; Graff & Mallin, 1967; Grunebaum and Klerman, 1967; Herpertz, 1995; Rosen et al., 1990). Simpson and Porter (1981) identified overwhelming feelings of abandonment and profound disruptions of attachment in a sample of hospitalized adolescent self-mutilators (ages 10-19). In an empirical study conducted by van der Kolk et al. (1991), the authors suggested that chronic self-cutters react to stressors in their adult lives as a recapitulation of early trauma and abandonment. The authors further concluded that while childhood experiences appear to contribute to the onset of self-destructive behaviors, the lack of subsequent healthy interpersonal attachments serves to maintain this behavior.

In adolescence the predictors for self-mutilation expand to include stressors such as peer conflict, problems with intimacy, and body alienation (Walsh & Rosen, 1988). In fact, Walsh and Rosen (1988) found body alienation to be the strongest predictor of self-mutilation and the only condition that was also associated with each of the predisposing childhood conditions identified in their sample (history of illness, surgery, and abuse). So as not to cause confusion it should be noted that Walsh and Rosen were not formally referring to dissociation in their mention of body alienation, but rather the adolescents' "pervasive pattern of disrespect, discomfort, and debasement of their physical selves" (p. 70). They observed these adolescents to have distorted body images, to hold negative attitudes about their personal attractiveness, and to be severely uncomfortable with pubertal changes. Walsh and Rosen speculated that the physical changes of puberty may put one at risk for body alienation, particularly when physical mastery experiences and a positive body image have not previously been achieved. Similarly, other studies have found female adolescent self-mutilators to exhibit significantly more somatic complaints and decreased body comfort compared to non-mutilators and to be preoccupied with their bodies and bodily processes (Asch, 1971; Darche, 1990; Ross & McKay, 1979).

Walsh and Rosen (1988) suggested that many adolescents may select self-mutilation because the behavior can at once convey the impact of multiple childhood and adolescent experiences. Based on their own study of adolescents in residential treatment they posited the following:

Via the act of self-mutilation, these individuals acted out all the familiar roles from childhood: the abandoned child, the physically damaged patient, the abused victim, the (dissociated) witness to violence and self-destructiveness, and finally, the aggressive attacker. These individuals chose SMB [self-mutilative behavior] because it also met all of their current psychic requirements. It discharged tension in a concrete, abrupt, dramatic, impulsive fashion. It was directed against their

bodies in a deliberate, self-defacing, self-disfiguring way, derived from their sense of body alienation. And it was one of the few ways in which they were able to attract solicitous attention from peers and adults. Finally, the act expressed their cumulative despair and rage at having experienced profound losses in the past and at experiencing additional losses in the present (pp. 75-76).

Although this behavior may be the symptom of choice, many self-mutilators also engage in other impulsive behaviors and are at greater risk for drug and alcohol abuse than non-mutilators (Graff & Mallin, 1967; Walsh & Rosen, 1988). In an empirical study examining the differences between self-mutilating and non-mutilating adolescent inpatient females (ages 13-17), Darche (1990) found that the self-mutilating group exhibited a greater frequency of depression, anxiety, hostility, mood disorders, eating disorders, and suicidal acts than the control group. DiClemente et al. (1991) discovered nearly 27% of the adolescents in their clinical sample (ages 12-21) reported sharing self-injury implements with each other and raised concern about the risk of HIV transmission within this population.

The investigation of self-mutilation in college students is surprisingly limited. Favazza et al. (1989) sampled 245 undergraduate students for comparative purposes with a clinical group of self-mutilators, but reported minimal descriptive information about self-mutilation in the former group. In a sample of 133 university students, ranging in age from 18-49 ( $M = 22$ ), Gratz et al. (2002) identified dissociation, insecure paternal attachment, childhood sexual abuse, and maternal emotional neglect to be positively associated with the frequency of self-mutilation among college women. The authors, however, asserted their sample was atypical, as it consisted of several nontraditional students, and cautioned against the generalizability of their results. In a more recent study, college students with a history of self-mutilation were more likely to endorse a

history of emotional and sexual abuse, suicidal ideation or suicide attempt, increased psychological distress, and eating disordered symptoms compared to non-mutilators (Whitlock, Eckenrode et al., 2006). Beyond these studies, however, research specifically concerning self-mutilation in non-clinical college students is quite difficult to locate.

### **Summary**

Research indicates self-mutilation is most likely to ensue during the adolescent years with peak incidence typically occurring from mid-adolescence to early adulthood. Childhood risk factors for subsequent self-mutilation in adolescence include a history of loss, as well as experiences that threaten bodily integrity, such as abuse, illness, or invasive surgery. In adolescence, the primary risk factor for self-mutilation is a sense of body alienation, including feeling detached from the body as well as holding negative feelings about the bodily self. Furthermore, adolescent self-mutilators exhibit sensitivity to interpersonal loss. Self-mutilating adolescents also demonstrate more interpersonal problems, impulsive behavior, and symptoms of psychological distress than non-mutilators. The studies reviewed in this section reflect the tendency to study self-mutilation in clinical groups, leaving the question of what self-mutilation looks like among non-clinical adolescents largely unanswered. However, in two reviewed studies conducted with a college population, individuals with a history of self-mutilation reported similar risk factors as those found in clinical groups.

### **Psychological and Behavioral Functions of Self-Mutilation**

Self-mutilation involves the interaction of biological, environmental, social, and cultural factors and has been shown to serve many psychic and behavioral functions. The behavior consists of strong self-regulatory and communicative features, making it a



fundamentally personal and social expression. Moreover, this behavior is employed for a variety of reasons and may serve multiple purposes simultaneously.

### **Affect Regulation**

The most frequently cited purpose of self-mutilation documented in contemporary literature and reported among adolescent inpatients is to express and control emotions (Briere & Gil, 1998; DiClemente et al., 1991; Herpertz, 1995; Nock & Prinstein, 2004). For many, self-injury is an effective means of relieving and coping with negative affect, which is often experienced as intolerable. Persons who rely on self-mutilation in this way have been observed to have difficulties with affect regulation such that emotional stimulation easily leads to feeling overwhelmed. By externalizing one's feelings through cutting, for instance, these overwhelming emotions are diminished. The resultant physical evidence of the injurious act may assure one that his or her feelings are real and can be tolerated, as well as serve as a form of symbolic communication to others. Furthermore, self-mutilators have been observed to lack the ability for verbal articulation of their emotions and therefore rely on their bodies for emotional expression. Zlotnick et al. (1996), for instance, found a greater incidence of alexithymia among actively self-mutilating female inpatients, further underscoring the difficulty identifying and articulating emotions associated with this behavior.

A common precipitant of self-mutilation is an accumulation of tension, anxiety, and the sense of impending bodily explosion (Favazza, 1996; Gardner & Gardner, 1975; Grunebaum & Klerman, 1967). Feelings of relaxation and calm are often experienced after such an act. The presence of blood after an injury serves as a symbolic sign of the

tension being released. Scar tissue may hold symbolic meaning as it shows that healing has occurred, as well as marking hurtful and significant events in one's life.

Similarly, self-mutilation may serve the purpose of controlling need or affect rather than expressing them. Self-mutilation may occur to control racing thoughts and rapidly changing emotions and to decrease feelings of depression. Aggression against the self in the form of physical harm can also be understood as punishment for various behaviors, thoughts, or feelings as well as needs that feel out of control (Himber, 1994). The behavior has also been cited as a way to avoid difficult memories and flashbacks associated with posttraumatic symptoms (Briere & Gil, 1998).

### **Depersonalization**

Self-mutilation is widely reported as an effective means of controlling episodes of dissociation or depersonalization in which one feels separate and detached from the body and bodily experiences. Fisher (1973) observed that experiences of depersonalization span a continuum, with most people experiencing mild depersonalization in reaction to stress or anxiety. In more extreme forms, however, depersonalization can be terrifying, with the individual experiencing an altered perception of the self, reality, and an inability to control one's actions (akin to having an "out of body" experience). Subjectively, depersonalization may be described as feeling empty, dead, unreal or numb (Miller & Bashkin, 1994). A person in this state experiences a lack of distinction between self and other, leading to an overwhelming fear of losing one's identity (Raine, 1982).

Self-mutilation is most commonly cited as a means of ending a dissociative state (Asch, 1971; Herpertz, 1995; Miller & Bashkin, 1974; Raine, 1982; Rosenthal et al., 1972). A dissociative or depersonalized state may be triggered by experiences involving

overwhelming emotions (particularly anger), perceived abandonment, rejection, or loss, and threats to interpersonal safety and emotional needs (Herpertz, 1995; van der Kolk et al., 1991). In this way, depersonalization acts as a defensive strategy for affect regulation. The following sequence of events is commonly cited in descriptions of self-mutilation: (1) a frustrating external event, often related to loss or perceived threat, (2) feelings of dysphoria or increased feelings of tension that are overwhelming and unable to be verbalized, (3) feelings of emptiness, numbness, depersonalization or distortions in body perception, (4) the urge to injure oneself, with possible struggle over whether or not to do so, (5) the self-mutilative act, often experienced without pain, and (6) tension relief or the return of normal feeling states (Walsh & Rosen, 1988).

The appearance and sensation of the wound or blood often interrupts the dissociative process. The experience of pain during self-mutilation is variable. While some report analgesia throughout, others do report pain, particularly once feelings of dissociation have diminished. Relief is reported to occur within minutes of the self-mutilative act. For the individual who experiences depersonalization, self-mutilation offers the return of tolerable feelings and proof of one's existence. Some scholars suggest that in addition to self-mutilating as a means of ending dissociative states, the behavior may also be used to induce feelings of depersonalization, presumably as a way of avoiding painful emotions (Connors, 1996; Guralnik & Simeon, 2001; Himber, 1994).

### **Biological Factors**

The study of biological explanations of self-mutilation has been slow to develop. Initial research focused on the biological components of impulsivity and aggression, such as serotonergic dysfunction, as a possible explanation for this behavior as well as the role

of the endogenous opioid system (Grossman & Siever, 2001). Another possibility is that more permanent physiological changes may occur as a result of repeated self-harm (Grossman & Siever, 2001; Simeon et al., 1992). For some, self-mutilation appears to be a means of generating euphoric feelings. Research on the neurochemical components of the behavior has begun to explore the possibility that an endorphin rush before, during, or after self-injury can in itself become addictive and may explain the compulsion to repeat the behavior (Simeon & Favazza, 2001). It has been proposed that some individuals build up a tolerance to the analgesic and calming effects of the behavior and have to resort to more severe forms of self-injury to produce the desired effect (Alderman, 1997). Research on the biological components of self-injury, however, remains limited. Emotional factors are still the most widely considered root of self-mutilation, with physiological factors seen as effects of the behavior that may in turn serve to maintain and reinforce its repetition (Conterio & Lader, 1998).

### **Social Factors and Contagion**

Environmental and contextual factors also serve to initiate and maintain self-harm. The contagious nature of the behavior, particularly in institutional settings has been well documented (Rosen et al., 1990; Ross & McKay, 1979; Walsh & Rosen, 1988) and typically involves an initiator of self-harm followed by others in the surrounding environment that inflict self-injury in apparent imitation. A contagion effect has been observed among numerous groups, including soldiers, psychiatric inpatients, and prison inmates (Matthews, 1968; Menninger, 1935; Ross & McKay, 1979). In these contexts, the behavior may be employed as a coping mechanism, as a manipulative ploy (i.e., transfer to different unit), group competition, and as a means of reinforcing group

identity. Adolescents appear particularly vulnerable to contagion and peer modeling influences. Competitive processes observed in inpatient settings include adolescents harming themselves to prove they are the “most unhappy” (Grunebaum & Klerman, 1967), as well as to prove themselves a genuine cutter versus an attention seeker or imitator (Crouch & Wright, 2004). For some it is a behavior that first occurs in the hospital, learned from other patients (Grunebaum & Klerman, 1967; Offer & Barglow, 1960; Raine, 1982). Through the process of modeling and reinforcement, individuals observe the ways in which self-mutilation is rewarded (e.g., attention) and then imitate this behavior themselves.

Self-mutilative contagion appears to be particularly germane to inpatient adolescent treatment settings. Offer and Barglow (1960), for instance, explored instances of group related self-mutilation among hospitalized adolescents (ages 14-22) occurring over a nine month period. While isolated incidents of self-mutilation were also observed during this time, the authors contended identification and imitation were salient processes in group related instances of self-harm. Moreover, peer group competition, attention seeking, individual psychopathology, the expression of anger and aggression, and the response of hospital personnel contributed to self-injury contagion observed in this sample.

Similarly, Matthews (1968) described epidemic self-harm on an adolescent unit lasting seven months in duration. Matthews conducted a sociometric analysis to track the eleven out of twenty-five adolescents (ages 12-18) who demonstrated self-injury. He identified two young girls as the primary initiators of the behavior, noting instances of self-harm on the unit diminished once these two patients were discharged. Ross and

McKay (1979) found self-mutilation contagion to be related to peer group customs in which the behavior acts as a sign of affection and group membership. Their study, conducted at a school for delinquent girls between the ages of 12 to 17, also concluded that instances of increased self-harm were directly related to increased attempts by staff to extinguish the behavior.

In a sample of adolescents (ages 15-21) in long-term psychiatric treatment, Walsh and Rosen (1985) conducted an empirical test of self-mutilation and contagion. Out of nine acting out behaviors (e.g., physical aggression, suicidal threats, fire setting, running away), self-injurious acts were the only behavior observed to occur in statistically significant clusters over a period of one year. This outcome suggests that subjects influenced self-mutilation in each other. Walsh and Rosen noted the contagion sequence began after it was announced that two staff members would be leaving the treatment center. A pattern of contagion followed lasting three weeks, involving nine patients, and over 50 self-inflicted injuries (Walsh & Rosen, 1988). Further study revealed that self-cutting episodes were significantly related to specific pairs of subjects and that very few subjects were found to be central to the contagion activity (Rosen & Walsh, 1989). This finding led the authors to posit that this feature of self-mutilation involves an interaction between individual psychopathology and troubled interpersonal relationships within a given social setting.

In examining case material from their studies, Walsh and Rosen (1988) identified four factors related to the contagion of self-mutilation. These include (1) primitive communication patterns in which self-mutilation serves to communicate what is unable to be expressed verbally, (2) attempts to change the behavior of others, such as using self-

mutilation as a means of manipulation, punishment, or revenge, (3) peer group influences, in which the self-injurious act may signify group membership, peer hierarchies, and social modeling influences, and (4) a response to staff and the treatment setting, such as attempts to gain staff attention as well as the anticipation of programmatic consequences.

In a more recent study, Taiminen et al. (1998) identified the majority of self-harm on an adolescent inpatient unit to be influenced by contagion. Their study, however, utilized an overinclusive definition of self-harm, including instances of overdose and starvation, which may have confounded their findings. Furthermore, they observed naïve patients to be particularly vulnerable to contagion and noted the manner in which self-harm functioned to bolster group cohesion. In a qualitative study, Crouch and Wright (2004) observed self-mutilation to be a response to conflict, distress, and anger in some adolescent inpatients and primarily an attention seeking device in others. Peer influences were also implicated in yet another inpatient sample, with a majority of adolescents reporting having friends who also engage in self-harm (Nock & Prinstein, 2005).

In a rare exposé of self-mutilation among non-clinical groups, Fennig et al. (1995) reported an outbreak of the behavior within a public junior high school. They found the majority of adolescents engaging in the behavior were socially popular, excelled academically, and did not exhibit overt symptoms of psychological disturbance. However, the identified leaders or initiators of self-mutilative behavior demonstrated greater psychopathology (largely symptoms of anxiety and depression) and tended to exert influence on less disturbed peers. The adolescents involved in this behavior tended

to be female and demonstrated greater instances of bisexual behavior and suicidal ideation than non-mutilators.

More recently, the internet has emerged as a potential source of social contagion, with over 400 identified message boards and blogs pertaining to self-injury (Whitlock, Powers et al., 2006). In an observational study of self-injury related websites, Whitlock, Powers, et al. (2006) highlight the manner in which such sites may provide support for youngsters who might otherwise remain silent about their behavior, while also affording them the opportunity to be negatively influenced by others. Furthermore, the authors point to the manner in which these websites and other mentions of self-mutilation in popular media might serve to normalize the behavior, thereby encouraging some adolescents to experiment with self-injury.

The secondary gains of self-mutilative behavior (e.g., increased attention, special care), particularly in inpatient settings, may also be motivating factors. Additionally, the under stimulation and environmental restriction inherent in inpatient treatment was found to exacerbate the behavior (Ballinger, 1971; Ross & McKay, 1979). While the behavior is often viewed as a call for help by individuals who feel helpless and alone (Simpson & Porter, 1981), other individuals may engage in self-mutilation as a way to keep people at a distance. Although it is mostly a private behavior, self-mutilation has strong interpersonal undercurrents and is able to communicate aggression, ambivalence, and other strong feelings related to human interactions. Self-mutilation also has a strong emotional impact on others.



## **Summary**

This section explored various functions of self-mutilation. Utilizing the behavior to regulate emotions appears to be one of the most common functions, with self-mutilation offering a means of putting an end to negative feelings, as well as generating or inducing positive feelings. Rather than passively succumbing to overwhelming affective experiences, self-mutilation appears to offer a concrete course of action. It has been suggested that self-mutilators become easily overwhelmed by their inner experiences, lacking the necessary skills to regulate and communicate their feelings in more abstract ways. The association between self-mutilation and disturbances in body image, as seen in depersonalization, was discussed as well as preliminary findings on the role of biological factors in this behavior. Finally, social functions of the behavior were described with emphasis on the occurrence of contagion among institutionalized adolescents.

## **Object Relations Theory**

This section focuses on object relations theory, with emphasis on the separation-individuation process as outlined by Mahler, Pine, and Bergman (1975). The integral role of bodily experience in psychological development is also discussed. Object relations refer to the internalized schema or representation one forms of meaningful relationships, particularly early relationships, which become part of one's self-representation and personality structure. In object relations theory, the thoughts, feelings, fears, and fantasies attributed to these representations also bear significance (Westen, 1991). An individual's object relations are considered important determinants of the quality of future relationships and interpersonal functioning.

## **Object Relations and Early Development**

During the first three years of life the foremost influence on psychological development is the relationship with primary caregivers. When the caregiver is empathically attuned to the infant's needs, feelings, and experiences, the child gains a sense of trust, safety, and relatedness. Over time, the quality of the caregiver's response informs the child's expectations of how its needs will be met. With maturation the child comes to internalize these feelings and gains the ability to create and maintain mental representations. This budding intrapsychic process, along with strides in physical and cognitive development, allow the child to move from symbiotic union with the caregiver to arrive at a more individuated, stable sense of self.

The unfolding of these early experiences and the development of internal psychic structures are believed to form the basis for identity formation, the differentiation of feeling states, emotional self-regulation and frustration tolerance, ego functioning, reality testing, and the capacity for "true object relationship" (Mahler et al., 1975). As Winnicott wrote: "the mental health of the human being is laid down in infancy by the mother, who provides an environment in which complex but essential processes in the infant's self can become completed" (1958, p. 160). Similarly, Orbach (2003) asserted the quality of early caregiving is implicated in self-preservation, and inversely, self-destruction, citing three intervening processes. These include the caregiver's role in taming the child's self-directed aggression and frustration, the caregiver's careful attunement to the child's bodily needs, and identification with the caregiver's love of the child and his or her body as demonstrated through physical care.

Moreover, the basic theoretical premise, which was first expressed by Freud (1960), is that the ego, or sense of self, derives from early, preverbal bodily experiences. Object relational theorists have extended this statement, citing the integral relationship between the development of bodily self and psychological self within the context of the primary caregiving relationship (Edgumbe & Burgner, 1975; Krueger, 1989). In this case, Krueger (2002) clarified “the term ‘body self’ refers to a combination of the psychic experience of body sensation, body functioning, and body image,” while he described body image as “the dynamically and developmentally evolving mental representation of the body self” (p. 30). As such, one’s sense of and feelings about the body form the foundation and container for the emerging sense of self, both originating from the quality of interaction with primary objects (Winnicott, 1958). Based on extensive observational work with infants and their caregivers, Mahler and her colleagues concluded that the sense of self indeed originates in bodily sensations, particularly proprioception, as well the quality of caregiving, initially communicated through tactile and kinesthetic interactions (Mahler & McDevitt, 1982). Nonverbal exchanges between the caregiver and infant are believed to be integral in the gradual development between body boundaries and awareness, or essentially the capacity to distinguish between “me” and “not me,” as well as inner and outer, and contribute to the feeling of “being alive” (Mahler & McDevitt, 1982). Orbach (2003) emphasized the role of physical care and tactile comfort in the eventual internalization of self-care ego functions, as well as developing attitudes, perceptions, and beliefs about the body and its functions. All of these experiences lay the foundation for the development of body image, which are gradually integrated into one’s self-representation (Krueger, 2002).

According to Mahler's theory, infants are initially unable to differentiate between self and other and their experience is regulated primarily by physiological rather than psychological processes. The first few weeks after birth, known as the autistic phase, are characterized as a period of "normal autism" in which the infant is unaware that its needs are being satisfied by an agent outside of the self. A vague awareness of a caregiving presence is said to follow. The symbiotic phase spans from about one month to four or five months of age. In this context, the term symbiosis refers to the child's undifferentiated, fused self-object representation. Boundaries are necessarily blurred at this stage, with distinctions between inside and outside not yet intact. During this phase the child's experience is organized around affective states, and although self-object representations remain undifferentiated, a sense of pleasing and painful experiences emerges. According to Winnicott (1953), the caregiving environment must be "good enough," such that the caregiver adapts to the infant's needs. Such careful and active adaptation affords the infant an illusory sense of omnipotence, at least initially. Empathic failures on the part of the caregiver are at some point inevitable and are even considered necessary (in moderation) in order for the child to recognize and differentiate its own needs.

The separation-individuation phase begins at about four or five months until about thirty or thirty-six months and is dependent on normal passage through the autistic and symbiotic phases. Characteristic of the so called normal separation-individuation process is that the child evinces a "developmental readiness for, and pleasure in, independent functioning" (Mahler et al., 1975, p. 4). Of emphasis here is a growing, intrapsychic awareness of oneself as a separate individual, rather than focus on the

physical distance between child and caregiver. Moreover, Mahler describes separation and individuation as two interconnected developmental tracks that optimally progress jointly. In elaborating this point, Mahler et al. (1975) wrote:

One is the track of individuation, the evolution of intrapsychic autonomy, perception, memory, cognition, reality testing; the other is the intrapsychic developmental track of separation that runs along differentiation, distancing, boundary formation, and disengagement from mother. All of these structuralization processes will eventually culminate in internalized self-representations, as distinct from internal object representations (p. 63).

The separation-individuation phase is made up of four subphases. These include differentiation, practicing, rapprochement, and the consolidation of individuality and the beginnings of emotional object constancy.

In the differentiation subphase (from 4-5 months to 10-12 months) the infant is more perceptually alert and makes rudimentary steps toward separation-individuation through visual and tactile exploration of the caregiver's face, body, and accoutrements such as clothing, eyeglasses, and jewelry. A checking back pattern is also observed during this phase in which the child familiarizes itself with mother (or primary caregiver) and begins to discriminate that which is different from her. The practicing subphase follows (from 10-12 months to 15-18 months) in which the child displays a budding awareness of differentiation and autonomous strivings. These advances in awareness are possible due to increasing body differentiation from mother and the capacity to explore more and more aspects of the environment, owing to developing physical and locomotor skills. In addition, Mahler and colleagues credit the child's established bond with mother and the beginnings of basic ego functions as contributors to this process. Children at this stage are observed to exhibit a relative immunity to frustration and display limited

concern about mother's whereabouts. Despite children's drive for exploration, however, they periodically return to mother for comforting or refueling.

During the rapprochement subphase (from 15-18 months to 20-22 months) the child demonstrates expanding cognitive abilities and an increasingly differentiated sense of self, yet appears preoccupied with the caregiver's whereabouts, suggesting possible fear of object loss. Children may come to rely on transitional objects, the first 'not me' possessions that are imbued with symbolic meaning, to manage their growing awareness of separateness and differentiation (Winnicott, 1953). During rapprochement an approach-avoidance pattern of shadowing and darting away from the caregiver is observed. Mahler et al. (1975) inferred this behavior to constitute ambivalence in the child who simultaneously desires reunion with the caregiver yet fears re-engulfment by her, as it threatens new found autonomy. Children at this stage demonstrate greater sensitivity to parental approval and disapproval and may come to fear losing their parents' love. The growing use of language, the capacity for internalization, and the increasing ability for expression through symbolic play aid in the resolution of this subphase. Developmental interferences during this subphase are believed to contribute to problems with identity formation, dependency, separation-anxiety, and defensive splitting (Mahler et al., 1975).

The final subphase of separation-individuation (from 20-22 months to 30-36 months) involves the achievement of individuality and the beginnings of emotional object constancy. An internalized, positive representation of the primary caregiver allows the child to more comfortably function separately. Through the presence of an emotionally available caregiver, the child is able to achieve a relative sense of autonomy. Good and

bad object representations are also able to be tolerated and integrated during this subphase. Successful negotiation of the developmental tasks of separation and individuation give way to new awareness including an intrapsychic and bodily sense of self, an increased capacity for reality testing, and the integration of ego functions such as emotional regulation. Mahler and colleagues, however, recognized that the conclusion of the separation-individuation process of early childhood was not a true ending, noting the manner in which new manifestations of these early processes surface at various points in time throughout the life cycle (Mahler et al., 1975).

A less than adequate caregiving environment marked by chronic failures in attunement and mirroring can lead to developmental disruptions and maladaptive object relations, both viewed as precursors to psychopathology (Blos, 1967; Ogden, 1990; Winnicott, 1958). Krueger (2002) indicated problems in early caregiving, including chronic over-intrusiveness, over-stimulation, empathic unavailability, and selective responding impair the capacity to form a distinct and accurate representation of the body, and consequently the self. In addition to difficulties differentiating self from other, he asserted individuals brought up under such conditions suffer impediments in affect regulation, the ability to differentiate between internal states, and the ability for symbolic representation.

Similarly, Orbach (2003) contended the absence of adequate early caregiving may lead to confusion between body, self, and other, an inability to differentiate between inner sensations such as pleasure and pain, and a heightened sensation threshold as seen in dissociative states. According to Fisher (1973), disturbances in body image, such as depersonalization, can result in situations when caregivers intrude upon a child in such a

way as to inhibit a proper sense of body boundary and when caregivers use a child's body as an extension of themselves. Under such circumstances, Fisher asserted a child will have difficulty perceiving the body as separate and defensible, which may result in efforts to reinforce one's boundaries, including self-mutilation.

### **Object Relations and Development in Adolescence and Young Adulthood**

It is generally recognized that adolescence is a complicated time heralded by biological, psychological, and social changes. Issues of independence, identity, and sexuality are integral to the adolescent experience. The manifold developmental tasks at this time include separating from the internalized representations of primary caregivers, the development of a stable identity, realigning social connections, and the elaboration and stabilization of ego functions, including emotional regulation, reality testing, and impulse control (Elliott & Feldman, 1990). In contrast to early childhood, where the focus is on the body, and latency, where the focus is on the environment, Blos (1962) emphasized an essential aspect of adolescence is mastering one's emotions. According to Erikson (1963) the principal task to be negotiated during adolescence is the struggle between identity formation versus identity confusion. Identity formation is facilitated by differentiating oneself from parents and includes the development of a masculine or feminine identity as well as an orientation towards vocational goals and the exploration of possible value systems (Esman, 1991).

Both Erikson (1968) and Blos (1962) asserted these developmental processes may remain salient into late adolescence and early adulthood and recognized that individuals progress through these stages at their own pace, influenced by both genetic and environmental factors. Furthermore, the resolution of these adolescent tasks is believed



to ease the transition into early adulthood where the primary developmental concern, according to Erikson, is that of intimacy versus isolation. Erikson stated true intimacy is possible only when identity formation has sufficiently progressed. Moreover, Erikson (1968) recognized the role of the body in identity formation, indicating that optimal identity development implies “a feeling of being at home in one’s body” (p. 165). Blos indicated that optimally the quality of the self emerging at the close of adolescence will appear more stable and individuated. He recognized, however, that these developmental tasks and conflicts may not be completely resolved at the close of adolescence, as they undergo further elaboration and integration over the lifespan.

While the passage through adolescence will surely be shaped by cultural and societal influences, it is also believed to hinge strongly on the successful negotiation of previous developmental stages (A. Freud, 1958). Blos (1967) for instance, likened adolescence to a second separation-individuation period involving the struggle for emotional and behavioral autonomy in an effort to become a member of the adult world. He viewed the adolescent transition as a series of intrapsychic changes, similar to the initial separation-individuation process of early childhood, which are comprised of necessary drive and ego regression and progression. During this time, formerly latent conflicts from early development resurface and call for resolution in concert with the loosening of familial ties and greater participation in the outside world. While regression is integral to development, Blos suggested all adolescents attempt to defend against such regression to the point of undifferentiated self-object states. Further, he stated the resistance to the natural regressive pull of this period becomes problematic if it

“precludes a modicum of regression that is essential for the disengagement from early object relations and infantile ego states” (1967, p. 183).

It follows that disruptions in the initial separation-individuation process during infancy will compound one’s ability to effectively master adolescent separation-individuation tasks and form attachments to objects outside the family (Simpson & Porter, 1981; Walsh & Rosen, 1988). Conflicts carried over from childhood, including a history of traumatic experiences, can compound the difficulty of forming a stable adult identity and coping adaptively with the demands of the adult world (Giovacchini, 1992). Furthermore, unresolved childhood conflicts leave adolescents particularly vulnerable to regression to earlier modes of behavior, beyond which is necessary for healthy separation (Patton & Meara, 1992). Blos (1962) recognized this danger, noting that affective and identity disturbances may ensue when there is a “defectiveness or incompleteness of a sharp distinction between self and object representations in the ego” (p. 194). Additionally, as the adolescent separates, the auxiliary ego functions of parents become less and less available, threatening developmental impasse in those with insufficient ego strength.

Inherent in the adolescent separation-individuation process is the mourning of intense parental attachments and internalized representations that must ultimately be relinquished for healthy growth and development (A. Freud, 1958). In applying Freud’s 1917 treatise on mourning and melancholia to adolescent development, Polmear (2004) posited that disturbances in adolescent development often resemble processes of melancholia in which one remains attached to the lost object through identification. Moreover, melancholia is characterized by ambivalence, with the object as the recipient

of both love and hate. In instances where one is unable to resolve this ambivalence and separate from the object, the internalized hated object may become the target of one's aggression. This process may explain why some individuals resort to seemingly self-destructive acts like self-mutilation, particularly when their object relations have been shaped by abusive and traumatic experiences. In addition, Schafer (1973) contended that adolescents make unconscious assumptions about mental processes such that they imbue them with concrete, physical properties. Although he was not specifically referring to self-mutilation, his words certainly inform the issue of adolescent separation and the development of concrete, body-oriented symptoms:

Thinking unconsciously that feelings, identifications, and relationships are substances, the adolescent attempts to smash, cut, befoul, shrink, and obliterate them, and certainly to expel them by means of real as well as imagined separation (p. 50).

With puberty come rapid bodily changes and increased vulnerability for disturbances in body image, particularly in young girls. Adolescents who were unable to form an adequate sense of their body selves and body boundaries as children may be at increased risk for body alienation. As such, they may have difficulty perceiving the body as part of themselves and experience an overwhelming sense of the body as vulnerable to harm (Polmear, 2004). An extreme example of this type of body image distortion occurs in depersonalization, with one literally feeling outside of oneself (Fisher, 1973). Blos (1967) observed the regression of ego states in adolescence to be characterized by somatization, or the attempt to express feelings and developmental conflicts through the body. Additionally, he characterized this use of "action language" as a regression to a primitive form of tension reduction by turning passive to active. Self-mutilation can thus

be seen as one attempt to gain control and release unpleasant feelings and sensations through concrete, physical action.

Cross (1993) asserted that the process of feminine development is also complicated by experiences such as menstruation, abrupt physical changes at puberty, and pregnancy which contribute to a discontinuous and ambiguous experience of the body and threaten loss of control. Furthermore, she noted that cultural emphasis on appearance and body parts, rather than a whole, functional female body, can lead to feelings of body alienation and fragmented body image. In combination with a history of early experiences which fail to support the integration of mind and body (e.g., abuse, unempathic parenting), these facets of female development may compound the ambiguities of feminine bodily experience. Cross asserted that adolescents who are not able to tolerate this ambiguity are vulnerable to self-mutilation as a means of controlling emotions, sexuality, and body changes, as well as exerting influence within the interpersonal milieu.

### **Object Relations and Self-Mutilation**

Early psychoanalytic theoretical conceptualizations of self-mutilation derived from Freud's (1961) postulation that human behavior is governed by life and death instincts. According to Freud, healthy development was assumed when an appropriate balance between the amount of energy exerted toward growth and need satisfaction (libido) and aggressive drives were maintained. From this perspective, self-mutilation is seen as a symptom of the inability to negotiate the ongoing conflict between these impulses, with the aggressive drive ultimately turning against the self. Menninger (1938) departed from this view in theorizing self-mutilation as an attenuated form of suicide in

which the aggressive impulse is focused on one part of the body rather than the body as a whole. In this way the self-mutilator actively avoids suicide by choosing partial rather than complete destruction. Menninger believed self-mutilation could be explained by one of three reasons: (1) aggression towards a parent or other external love-hate object turned inward, (2) sexual or physical stimulation, and (3) punishment for aggressive or sexual thoughts, feelings, or behaviors. He also proposed that the severity of the self-inflicted injury is governed by the level of one's ego functions.

Sexuality and aggression featured prominently in early formulations of self-mutilation, which consisted primarily of case reports and clinical observations. For instance, self-mutilation was interpreted as a means of achieving sexual gratification, punishment for sexual acts or feelings, and an effort to control sexuality or sexual development. Graff and Mallin (1967), for example, observed self-cutting females in their adolescent sample to exhibit extreme responses to emerging sexuality, either exhibiting excessive and promiscuous sexual behavior or fear and sexual inhibition. Furthermore, these writers emphasized the pivotal point of menarche for young women and related cutting behavior to subsequent conflicts over sexuality and the meaning of womanhood (Rosenthal et al., 1972).

Emerging from this classical psychoanalytic emphasis on instinctual drives are numerous writings about self-mutilation and its relationship to internalized representations of self and others. In addition to conflicts over aggression and sexuality, the behavior is assumed to reflect a disturbed and maladaptive pattern of object relations. As Guralnik and Simeon (2001) observed, "the aggressiveness of the behavior marks an object world populated with critical persecutors and sparse in sources of internal security

and resource” (p. 179). Support for this perspective comes from clinical observations and research which indicates many self-mutilators have unstable if not traumatic childhoods, are often overwhelmed by their emotions, and experience conflicted interpersonal relationships. Implied in this conceptualization is that self-mutilation represents a divergence from normal development in which poorly negotiated childhood conflicts resurface and compound the difficulty of effectively mastering the tasks of adolescence. Such theorizing has been used to explain the adolescent onset of self-mutilation and the high incidence of the behavior within this population. Incidence reports of self-mutilation among adults further underscores the consequences of developmental difficulties in sustaining this behavior. A number of clinical accounts support the notion of developmental difficulties, noting many self-mutilators exhibit limited capacity to integrate emotional experience or use symbolic language to articulate their feelings (Doctors, 1981; Farber, 2000; Fowler et al., 2000; Graff & Mallin, 1967; Himber, 1994; Kafka, 1969), as well as the presence of impaired body egos and negative body attitudes among self-mutilators (Daldin, 1988; Doctors; 1981; Friedman et al., 1972) – the building blocks for which are all laid down in early childhood.

Specifically, various writers discuss adolescent self-mutilation as representing conflict carried over from the initial separation-individuation process of early childhood, particularly the rapprochement subphase of development (Doctors, 1981; Pattison & Kahan, 1983). The behavior is viewed as a symptom of an undifferentiated sense of self, both psychologically and on a bodily level. As Mahler and colleagues related:

An old, partially unresolved sense of self-identity and of body boundaries, or old conflicts over separation and separateness, can be reactivated (or can remain peripherally or even centrally activated) at any and all stages of life (Mahler et al., 1975, p. 5)

Lacking the necessary foundation for an individuated sense of self, these adolescents are believed to have greater difficulty detaching from infantile objects and mourning these losses in adolescence. Accounts in the literature, for instance, suggest self-mutilators are particularly sensitive to experiences of loss (Asch, 1971; Kafka, 1969; Novotny, 1972; Pao, 1969). Not having fully differentiated self from other, these adolescents may experience separation, abandonment, and loss (whether perceived or actual) as threats to their sense of self and bodily integrity. For these individuals, self-mutilation offers a means of controlling such overwhelming experiences and emotions and assists in delineating self-other boundaries by visibly marking the skin (Farber, 2000; Favazza, 1989; Kafka, 1969; Woods, 1988). In this way the fear of dissolution or self-fragmentation threatened by object loss is averted and one's self-representation is affirmed.

The role of self-mutilation in reinforcing a sense of identity, affirming boundaries, and self-soothing has been reported in several case studies. For instance, Kafka (1969) observed his adolescent patient to have an incomplete body ego, a lack of emotional intimacy with her body, and a persistent 'not me' feeling about her body self. He suggested this patient's body, blood, scars, and self-mutilating implements served as transitional objects that assisted in the enactment of the separation-individuation process and in connecting internal and external experiences. Kafka conceptualized self-mutilation as offering a needed sense of immediacy and aliveness in this patient. Farber (2000), however, asserted self-mutilation ultimately fails as a true transitional object as it rarely leads to individuation or to the symbolic capacity necessary for tolerating ambiguity. Instead, she contended the behavior is a simplistic and concrete attempt to

solve complex intrapsychic conflicts and often reinforces attachments to internalized love-hate objects. Farber did, however, suggest self-mutilation serves pre-transitional functions, owing to its powerful ability to soothe.

Asch (1971) observed self-mutilation as a way to resolve feelings of emptiness and identity confusion. He suggested the female adolescent wrist scratchers in his sample exhibited anhedonia and depersonalization as a defense against their fragile self-representations and intolerable aggressive impulses. With the exception of anxiety, these adolescents had difficulty experiencing and identifying affect. Moreover, he noted they appeared to have no lasting object relationships, lacking a basic sense of object constancy and the ability to identify with and internalize self-object experiences. Asch contended that the loss of the mother, signified by adolescence, felt to these girls as if they were losing their own identity and that self-mutilation was an effective method of cathecting their body image, and consequently their self-representation.

Doctors (1981) viewed self-mutilation as an enactment of the rapprochement phase of the toddler in which the adolescent both desires closeness and fears engulfment by the mother. She asserted that the self-representation of these adolescents appeared confused with that of the mother or identified with bad introjects such that they were unable to achieve emotional object constancy. Self-mutilation, she asserted, is an unconscious attempt to rid oneself of bad objects and restore good object representations. Simpson and Porter (1981) also noted the adolescents in their sample, all self-mutilators, exhibited more than usual difficulty with identity formation and autonomous functioning. They suggested these difficulties were related to the fact that all of these adolescents



experienced disruptions in early development which interfered with their ability to form healthy attachment relationships with caregivers.

In addition to separation-individuation difficulties, disruptions in early development are also believed to interfere with affect regulation. Self-mutilating adolescents have been observed to have particular difficulty processing and expressing aggression, implying failure on the part of early caregivers to effectively contain and neutralize their anger (Raine, 1982). Adolescents from backgrounds overshadowed by abuse and poor caretaking may confuse self, body, and others to the extent of representing hated others within their own body. The anger towards the frustrating object is then turned against the self in the form of self-injury as a means of punishment or identification with the aggressor (Graff & Mallin, 1967; Raine, 1982). As Simpson and Porter (1981) noted, it is often safer to direct anger toward the self when one is dependent on the true target of one's rage for survival. For these individuals, self-mutilation may be their only means of controlling their emotional experiences.

The child's experience of the body within the context of the early caregiving relationship is believed to contribute to the development of language and the capacity for symbolic thought, while disturbances in object relations are believed to interfere with the ability to symbolize one's experience (Farber, 2000; Fowler et al., 2000). Experiences of early trauma, for instance, are thought to interfere with cognitive development, emotional processing, and stress regulation, further impeding the ability to articulate feeling states (van der Kolk et al., 1991). As Farber (2000) described this process:

Physical violence is the language of those who, lacking the ability to use metaphor or symbol to express emotion or unspeakable pain, use the body to speak for them. In those who tend toward self-harm, these acts serve to narrate that which their words cannot say or their minds cannot remember (p. xxxi).

In the context of such developmental deficits, Krueger (2002) contended self-mutilation reflects an inability to maintain a mental representation of one's body that can sufficiently contain the emerging psychological self as well as impairment in communication via symbolic language. As such, these individuals must repeatedly resort to the immediacy of physical stimulation to regulate affect and to create and restore their self-representation.

Furthermore, self-care ego functions, which evolve from the early caregiving relationship and determine the extent to which one internalizes a sense of themselves as worthy of care and protection, are likely to be distorted in adolescents who were abused by parental figures. These individuals may come to associate feelings of nurturance with pain and violence and engage in self-injury as a distorted attempt at self-care and self-soothing (Simpson & Porter, 1981). Children whose physical boundaries have been intruded upon may feel betrayed by their bodies. Disturbances in body image, body boundaries, and difficulty recognizing one's internal states and feelings are likely. As adolescents, these individuals may experience their bodies as vulnerable to harm, particularly given the many physical, sexual, and emotional changes during this time period. Self-mutilation may ultimately be a means of gaining control over their bodily experience and claiming ownership over the body.

The social functions of self-mutilation are not often discussed in psychoanalytic literature, yet may reflect important features of the adolescent transition. Adopting an identity as a cutter, for instance, evokes the Eriksonian search for identity. Self-mutilation for the purpose of establishing group membership and group cohesion may also serve to ease the separation from parents and realign one's identification with peers.

In addition to gaining important rewards from the social environment, self-mutilation may also consciously or unconsciously serve to keep others at bay, consequently foreclosing the possibility of interpersonal intimacy in early adulthood as Erikson (1968) described it.

### **Summary**

This section reviewed object relations theory, particularly in the context of Mahler's stages of separation-individuation as traversed in early childhood. The integration of bodily experiences as well as the quality of caregiving were emphasized as important determinants in psychological development and identity formation. The impact of poor caretaking and disruptions in the separation-individuation process are believed to interfere with self-other differentiation and autonomous functioning. Furthermore, without necessary formative experiences in childhood, the capacity for affect regulation will be adversely affected, with individuals feeling easily overwhelmed by their feelings and lacking effective strategies for regulating emotions. Distortions in body image are also implicated, including depersonalization, experiencing the body as vulnerable to harm, and the failure to internalize a sense of the body as worthy of care and protection.

Next, the developmental tasks of adolescence and early adulthood were described with emphasis on the theorizing of Erikson (1968) and Blos (1967), both of whom agree that tasks of separation-individuation and identity formation remain salient throughout and possibly beyond the late adolescent period. Mastering emotions, stabilizing ego functions, and integrating bodily changes are also important features of this developmental phase. The manner in which earlier stages impact subsequent stages was

discussed, with emphasis on the vulnerabilities faced by adolescents who carry over conflicts from childhood.

The application of object relations theory to self-mutilation followed, with the behavior seen as a manifestation of a hostile or unsupportive internal object world. Moreover, self-mutilation is seen as a form of developmental crisis in which unresolved issues from previous stages of development resurface, impeding adolescent progress. Disturbances in early separation-individuation are particularly implicated, with self-mutilation conceptualized as a method of reinforcing body boundaries and self-representation, ridding oneself of bad objects, or attacking introjected bad objects. The behavior is seen as an effective means of regulating affect in the absence of internalized capacities to process feelings. Self-mutilation is also seen as the manifestation of distorted self-care ego functions presumed to result from chronic neglect or intrusion during early childhood.

While the aforementioned ideas are compelling in their attempts to understand the intrapsychic and interpersonal determinants of self-mutilation, to date there have been no known attempts to empirically assess the relationship between various object relational constructs and self-mutilation. In addition to internalized representations of self in relation to others, issues of separation-individuation, body image and experience, and emotional regulation have all been strongly implicated in models of self-mutilation. With the advent of instruments that purport to measure these variables, it may now be possible to extend preliminary empirical evidence to these ideas.

## **CHAPTER III**

### **METHOD**

#### **Purpose**

The purpose of this study was to offer an enhanced understanding of the complex phenomenon of self-mutilation among college students. Specifically, this study aimed to empirically assess the relationship between self-mutilation and a variety of constructs that have been primarily only thus far theoretically linked to this behavior. Instruments measuring perceptions of parental care, parental overprotection, and specific separation-individuation conflicts were included to assess the quality of participants' object relations. Strategies of emotional regulation, bodily attitudes and experiences, and subjective perceptions of stress were measured as behaviorally-based features of self-mutilation and object relations. In light of the methodological limitations in a number of previous studies, the proposed research systematically investigated the phenomenon using the operational definition of self-mutilation outlined by Favazza as "the direct, deliberate destruction or alteration of one's own body tissue without conscious suicidal intent" (1996, p. 225).

Logistic regression analysis was employed to assess the likelihood of being a self-mutilator as a function of the following variables: Mother Care, Mother Overprotection, Father Care, Father Overprotection, Separation Anxiety, Engulfment Anxiety, Dependency Denial, Body Image, Body Care, Comfort in Touch, Body Protection, Cognitive Reappraisal, Expressive Suppression, and Perceived Stress. Finally, qualitative interviews were conducted with a small number of self-mutilating participants to offer a phenomenological understanding of this behavior. The procedure and results for the interview component of the study are discussed in Chapter V.

## **Research Questions**

The following research questions were investigated: Are self-mutilating college students more likely to report negative representations of parental care and protection compared to non-mutilators? Are self-mutilators more likely to report separation-individuation related conflicts compared to non-mutilators? Are self-mutilators more likely to experience less emotional investment in their bodies compared to non-mutilators? Are self-mutilators more likely to employ maladaptive emotion regulation strategies compared to non-mutilators? Are self-mutilators more likely to experience events in their lives as stressful compared to non-mutilators? To answer these questions, the following hypotheses were tested:

1. Self-mutilators are more likely to perceive maternal and paternal care during childhood as significantly less affectionate and less encouraging of autonomy compared to non-mutilators.
2. Self-mutilators are more likely to exhibit the separation-individuation conflicts of separation-anxiety, engulfment anxiety, and dependency denial compared to non-mutilators.
3. Self-mutilators are more likely to exhibit negative feelings about their bodies, less investment in body care, less comfort in touch, and less concern with body protection compared to non-mutilators.
4. Self-mutilators are more likely to rely on expressive suppression and less likely to rely on cognitive reappraisal as emotion regulation strategies compared to non-mutilators.

5. Self-mutilators are more likely to report subjective perceptions of stress compared to non-mutilators.

### **Recruitment**

Participants were recruited through a variety of sources over the course of one academic semester. Because limited research has been conducted exploring possible gender differences in self-mutilation, the sample was restricted to females so as not to obscure the findings. Recruitment began with the Educational Psychology Subject Pool at the University of Texas. In an effort to increase the chances of capturing self-mutilators in the subject pool for this study, specific screening questions were posed to potential subjects. Because direct questions about self-harm were not permitted by the EDP Subject Pool Committee, the screening questions asked about experiences that have been shown to be common among self-mutilators. The screening questions were as follows: (1) Do you often/easily feel anxious or overwhelmed? (2) Have there been periods over the past year when you have felt depressed? (3) Do you ever feel numb or outside of yourself? (4) Do you have a high tolerance for physical pain? (5) Do you keep your emotions to yourself or feel uncomfortable sharing your feelings with others?

These questions were posted on the EDP Subject Pool webpage and were completed online by students registered in the subject pool for the given semester. The EDP Subject Pool Coordinator was instructed to assign female participants to the study based on their responses to these questions. To ensure a sufficient number of participants for the non-mutilating group, 80 students who answered “no” to all of these questions were requested. An additional 320 students who answered “yes” to any of these questions were requested with the hope that a sufficient number of these students would

fall into the self-mutilating group. A larger number than was needed was requested to account for participants who might drop out of the study and subject pool constraints that were likely to result in far fewer participants than were requested. The Subject Pool Coordinator was instructed to give preference to students who answered “yes” to all five questions, followed by students who answered “yes” to four questions, and so on in descending order. As outlined by the Educational Psychology Subject Pool policies, students were informed that their answers to these screening questions would be used for the sole purpose of study assignment.

Ultimately, a total of 168 participants were recruited through the subject pool. These participants received credit toward the department’s undergraduate research requirement for completing the first part of this study (online survey). Of these participants, 132 failed to endorse any item on the Deliberate Self-Harm Inventory (DSHI) and were therefore considered “non-mutilators.” The remaining 36 subject pool participants reported experience with one or more category of self-harm listed on the DSHI, rendering them “self-mutilators” for the purpose of this study.

Other strategies were employed to recruit additional self-mutilators. Participants were solicited through posted advertisements at the University of Texas and three local universities (St. Edward’s University, Southwestern University, and Texas State University) (see Appendix A). Three of the four participating universities also agreed to directly refer female students with a history of self-harm to the study when they presented at their respective university counseling centers by giving these students a recruitment flyer. Additional participants were recruited at the University of Texas by sending emails to leaders of campus sororities and other student organizations with information about the



online study and asking them to forward the message to their female members. A total of 93 participants were recruited through these alternative means, with 57 identifying recruitment via flyer, 23 identifying recruitment via referral, and 13 failing to identify their source of recruitment. Of these participants, 49 positively endorsed one or more DSHI item and were included in the self-mutilating group.

Although these methods of recruitment were intended to target persons who would ultimately make up the self-mutilating group, 44 students who were recruited through alternatives to the subject pool did not endorse any DSHI items and were included in the non-mutilating group. Students recruited through alternatives to the EDP subject pool were informed they would be entered into a lottery drawing for a one hundred dollar cash prize as an incentive for participation. It should be noted that the screening questions used to facilitate EDP Subject Pool recruitment were not asked of participants recruited through other means, as the flyer used to recruit additional participants explicitly indicated the study was investigating self-mutilation.

The majority of participants came from the University of Texas (96.2%,  $n = 251$ ). Despite recruitment efforts, only six participants were recruited from outside universities. Because these participants all fell into the self-mutilating group, they were retained for the analyses. Four participants did not identify which university they came from. Recruitment efforts ceased at the close of the academic semester when it was determined that a sufficient number of self-mutilators had been sampled in order to conduct the statistical analyses. In sum, the various recruitment efforts yielded 261 participants, with 85 falling into the self-mutilating group and 176 falling into the non-mutilating group.

## **Participants**

The participants' ages ranged from 18 to 44 ( $M = 21$ ,  $SD = 2.19$ ,  $Mdn = 21$ ). All participants were female and identified as single (i.e., never married). Approximately 63.2% of the participants identified as European American/Caucasian, 13.8% as Hispanic, 8% as Asian American/Pacific Islander, 3.1% as African American, 2.7% as Asian Indian/Pakistani, 1.1% as Middle Eastern/Arab, 0.8% as Native American/Alaskan Native, 5% as bicultural, and 2.3% as "Other".

Regarding sexual orientation, 95% of participants identified as heterosexual, 1.1% identified as lesbian, 1.5% identified as bisexual, and 2.3% reported they were unsure of their sexual orientation. Forty-eight percent of the participants reported being in their senior year of college, 25.7% were juniors, 12% were sophomores, 11.5% were freshman, and 2.7% were graduate students. Fifty-seven percent of participants reported having no previous experience with mental health treatment, while the remaining 43% reported experience with various mental health treatment modalities. Physical abuse was reported by 4.6% of the sample, with two participants indicating they were physically abused by their mothers and eight participants indicating they were physically abused by their fathers. Five percent of participants reported a history of sexual abuse. No participant endorsed maternal sexual abuse, while one participant reported being sexually abused by her father. Table 1 presents a complete listing of demographic variables by group.

Table 1  
Responses to Demographic Questionnaire by Group (N = 261)

	Non-mutilator Frequency/Within Group Percentage		Self-mutilator Frequency/Within Group Percentage	
<b>Ethnicity</b>				
African American	7	(4%)	1	(1.2%)
Hispanic/Latina	23	(13.1%)	13	(15.3%)
Asian American/Pacific Islander	17	(9.7%)	4	(4.7%)
Native American/Alaska Native	2	(1.1%)	0	
Asian Indian/Pakistani	4	(2.3%)	3	(3.5%)
Middle Easter/Arab	3	(1.7 %)	0	
European American/Caucasian	107	(60.8%)	58	(68.2%)
Bicultural	9	(5.1%)	4	(4.7%)
Other	4	(2.3%)	2	(2.4%)
<b>Sexual Orientation</b>				
Straight	175	(99.4%)	73	(85.9%)
Lesbian	0		3	(3.5%)
Bisexual	1	(0.6%)	3	(3.5%)
Unsure	0		6	(7.1%)
<b>Living Situation</b>				
Sorority House	17	(9.7%)	1	(1.2%)
Dormitory	20	(11.4%)	20	(23.5%)
Live with Partner	11	(6.3%)	11	(12.9%)
Live with Friends/Roommate	103	(58.5%)	41	(48.2%)
Live with Family	25	(14.2%)	11	(12.9%)
No Response	0		1	(1.2%)

Table 1 (continued)

	Non-mutilator Frequency/Within Group Percentage		Self-mutilator Frequency/Within Group Percentage	
<b>Year in School</b>				
Freshman	13	(7.4%)	17	(20%)
Sophomore	18	(10.2%)	13	(15.3%)
Junior	45	(25.6%)	22	(25.9%)
Senior	98	(55.7%)	28	(32.9%)
Graduate Student	2	(1.1%)	5	(5.9%)
<b>Mental Health Treatment</b>				
Yes	57	(32.4%)	56	(65.9%)
No	119	(67.6%)	29	(34.1%)
<b>Physical Abuse</b>				
Yes	4	(2.3%)	8	(9.4%)
No	172	(97.7%)	77	(90.6%)
By Mother	0		2	(2.4%)
By Father	3	(1.7%)	5	(5.9%)
<b>Sexual Abuse</b>				
Yes	2	(1.1%)	11	(12.9%)
No	174	(98.9%)	74	(87.1%)
By Mother	0		2	(2.4%)
By Father	3	(1.7%)	5	(5.9%)
<b>Recruitment</b>				
Subject Pool	132	(75%)	36	(42.4%)
Flyer	26	(14.8%)	31	(36.5%)
Referral	14	(7.9%)	9	(10.6%)
No Response	4	(2.3%)	9	(10.6%)
<b>School</b>				
UT	176	(100%)	75	(88.2%)
Other University	0		6	(7.1%)
No Response	0		4	(4.7%)

### **Group Comparisons**

Comparisons between the self-mutilating and non-mutilating groups were performed to determine if there were significant differences with respect to the demographic variables being assessed. Self-mutilators ( $M = 20.93$ ,  $SD = 3.14$ ) and non-mutilators ( $M = 21.14$ ,  $SD = 1.53$ ) did not differ significantly in age,  $t(103.781) = .576$ ,  $p = .566$ . The remaining demographic variables were analyzed separately using two-way contingency tables. No significant differences were detected in the breakdown of Caucasian/European American, Hispanic/Latina, and other minority groups between the two groups,  $\chi^2(2, N=261) = 3.04$ ,  $p = .219$ .

A significantly greater proportion of self-mutilators identified as lesbian, bisexual, or unsure of their sexual orientation compared to non-mutilators,  $\chi^2(1, N = 261) = 22.23$ ,  $p = <.001$ . Self-mutilators reported significantly more experience with mental health treatment than non-mutilators,  $\chi^2(1, N = 261) = 26.195$ ,  $p < .001$ . Over sixty-five percent of self-mutilators reported experience with mental health services. The breakdown of mental health services utilized by self-mutilators was as follows: inpatient treatment (3.5%,  $n = 3$ ), outpatient treatment (22.4%,  $n = 19$ ), medical doctor/psychiatrist (24.7%,  $n = 21$ ), psychologist (30.6%,  $n = 26$ ), counselor/social worker (32.9%,  $n = 28$ ), individual therapy (32.95%,  $n = 28$ ), group therapy (10.6%,  $n = 9$ ), family therapy (3.5%,  $n = 3$ ), emergency room (7.1%,  $n = 6$ ). Self-mutilators also reported a significantly higher proportion of physical and sexual abuse compared to non-mutilators,  $\chi^2(1, N = 261) = 21.67$ ,  $p <.001$ .

### **Instrumentation**

The study included measures of participants' extent and type of deliberate self-harm, a measure assessing perceptions of parental care and overprotection, a separation-

individuation inventory, a measure of emotional investment in the body, a measure of emotional regulation, and a measure of perceived stress. Participants completed these measures and a demographic survey on a secure website specifically devoted to this research study. The time required to complete the online portion of the study was estimated to be about 45 minutes to one hour. Internal consistency estimates for each of these measures are included in Chapter IV. All measures included in this study can be viewed in Appendix B.

#### *Deliberate Self-Harm Inventory*

The Deliberate Self-Harm Inventory (DSHI) (Gratz, 2001) is a behaviorally based measure of self-harm consisting of 17 items in self-report questionnaire format. This measure draws on an appropriate definition of self-mutilation based on Favazza's (1996) original definition and is consistent with the definition employed in this study. Thus, according to the DSHI, deliberate self-harm is defined as "the deliberate, direct destruction or alteration of body tissue without conscious suicidal intent, but resulting in injury severe enough for tissue damage (e.g., scarring) to occur" (Gratz, 2001, p. 255). The DSHI assesses the frequency, severity, duration, and age of onset for 16 types of self-harm behavior (e.g., cutting, burning, carving) and offers respondents the opportunity to list additional self-harm behaviors that are not addressed by these questions. The construction of this inventory was based on clinical observations, testimony from those engaging in the behavior, and common features of self-harm reported in the literature. Gratz (2001) reported an alpha coefficient of .82 within a college sample as well as a test-retest reliability coefficient of .92 over a period of two to four weeks. For the current study, subjects were given dichotomous scores based on their endorsement of self-mutilative behavior (1) or no prior history of this behavior (0).

### Parental Bonding Instrument

Subjects' internal representations of their parents were assessed using the Parental Bonding Instrument (PBI; Parker et al., 1979). The PBI is a 25-item self-report measure of perceptions of parental care during the first sixteen years of life. It consists of two bipolar scales that separately assess perceptions of parental care and overprotection. Perceptions of mother and father were assessed separately, yielding a total of four scales: Mother Care, Mother Overprotection, Father Care, and Father Overprotection. The "mother" and "father" scales consist of the same 25-items (for a total of 50 items). All items are rated on a four point Likert scale ranging from 1 (very unlike) to 4 (very like). High scores on the Care scale reflect perceptions of parents as warm and affectionate, while low scores reflect indifference and neglect. The Overprotection scale measures respondents' perceptions of parents as controlling and intrusive or encouraging of autonomy. Items on the Overprotection scale were recoded so that higher scores in every case indicated more encouragement of autonomy and lower scores indicated more parental control and intrusion.

Sample items from the Care and Overprotection scales respectively include: [mother/father] "Spoke to me with a warm and friendly voice," "Did not help me as much as I needed," "Liked me to make my own decisions," and "Did not want me to grow up." Parker et al. (1979) reported internal consistency coefficients of .76 (Care) and .63 (Overprotection) as well as split half reliability estimates of .88 (Care) and .74 (Overprotection) in a non-clinical sample. Test-retest reliability estimates of .63 (Care) and .76 (Overprotection) were also reported in this non-clinical sample after a period of three weeks (Parker et al., 1979). In a longitudinal study, Wilhelm and Parker (1990) reported high test-retest reliability in their non-clinical sample over a period of ten years. In line with administration details described by Parker (1979), the instructions of the PBI

were modified to ask subjects to respond to each item based on the “most and next most influential parent or parent-figure” from their childhood to account for a variety of possible family situations (e.g., step-parents).

### *Separation Individuation Test of Adolescence*

The Separation-Individuation Test of Adolescence (SITA; Levine et al., 1986; Levine & Saintonge, 1993) is a self-report measure assessing respondents’ attitudes about relationships with parents, teachers, and peers. The SITA is conceptually linked to Mahler’s theory of separation-individuation (Mahler et al., 1975) and is purported to measure the manifestation of these developmental tasks and their resolution during adolescence (Blos, 1967). The most recent version of the SITA is composed of nine subscales and a total of 103 items (Levine & Saintonge, 1993). The following subscales were used in the current research: (1) Separation Anxiety, (2) Engulfment Anxiety, and (3) Dependency Denial. In sum, these subscales comprise 33 items that are rated along a five point Likert scale ranging from “strongly agree” (= 5) to “strongly disagree” (= 1). Cronbach alphas ranging from .77 - .79 have been reported for these SITA subscales in non-clinical samples (Levine & Saintonge, 1993). The authors cite the theoretical-substantive validity, internal-structural validity, and the external-criterion validity of this instrument (Levine et al., 1986). The SITA has been used in numerous studies with adolescent college students age 17-25 years old (Gnaulati & Heine, 2001; Holmbeck & Leake, 1999; Kroger & Green, 1994; Levine et al., 1986; Rhodes & Kroger, 1992).

The following is a description of the aspects of separation-individuation measured by the selected SITA subscales as outlined by Levine et al. (1986). The Separation Anxiety subscale is purported to tap residual separation anxiety as characterized by the rapprochement stage of development. High scores reflect feelings associated with actual, anticipated, or perceived separation (emotional and physical) from important others.



These ideas are reflected in the following sample items: “I frequently worry about being rejected by my friends,” and “Being alone is a very scary idea for me”. In summarizing findings from various studies using the SITA, Holmbeck and Leake (1999) report high scorers on this subscale have been found to worry about gaining others’ approval and exhibit more inhibition, insecurity, and anxiety than low scorers.

Persons with high scores on the Engulfment Anxiety subscale tend to view relationships as a threat to their sense of self or autonomy. This subscale was intended to reflect the fear of engulfment that emerges during the rapprochement stage. Sample items are as follows: “Sometimes my parents are so overprotective I feel smothered” and “I am greatly looking forward to getting out from under the rule of my parents”. High scores on this subscale are associated with concern about being overly controlled by parents. High scorers tend to exhibit interpersonal sensitivity, anger, depression, and irritability (Holmbeck & Leake, 1999).

The Dependency Denial subscale measures the extent to which one denies or avoids dependency needs. This type of need denial is thought to reflect a defensive style that may emerge during the symbiotic stage and reemerge during adolescence (Levine et al., 1986). Sample items include: “I don’t see the point of most warm, affectionate relationships” and “I can’t feel that love has much of a place in my life”. Holmbeck and Leake (1999) report high scores on this subscale have been found to be associated with discomfort with intimacy, depression, anxiety, and loneliness as well as low self-esteem and social support. Holmbeck and Leake found the Separation Anxiety, Engulfment Anxiety, and Dependency Denial subscales to be most highly associated with maladjustment measures on the MMPI and MMPI-2 among undergraduate students than the other SITA subscales. Similarly, Rhodes and Kroger (1992) found late adolescent

women with eating disorders scored significantly higher on these same SITA subscales compared to a control group.

### *Body Investment Scale*

The Body Investment Scale (BIS) (Orbach & Mikulincer, 1998) is a measure of emotional investment in the body that was developed under the theoretical premise that aggression directed against the self is likely to reflect particular attitudes and feelings about the body. The BIS was developed over a series of four studies based on a sample of hospitalized and community Israeli adolescents ranging in age from 13 to 19 years old. The authors draw on the psychoanalytic contention that self-representation is based on early body experiences within the context of the primary caregiving relationship. The aspects of body experiences measured by the BIS are believed to derive from experiences in infancy and early childhood and are posed as central contributors in regulating self-preservation versus self-destruction. Orbach and Mikulincer (1998) propose negative bodily experiences may facilitate self-destructive acts such as suicide, while more positive feelings about the body may serve as a protective factor against such behavior.

The 24 items on the BIS consist of statements about experiences, attitudes, and feelings about the body. The scale consists of the following subscales: (1) Body Image, Feelings, and Attitudes, (2) Comfort in Touch, (3) Body Care, and (4) Body Protection. Sample items from the respective scales include the following: “I am satisfied with my appearance,” “I feel uncomfortable when people get too close to me physically,” “In my opinion it is very important to take care of the body,” and “I am not afraid to engage in dangerous activities.” Each item is rated according to the following Likert format: (1) = strongly disagree; (2) = disagree; (3) = undecided; (4) = agree; (5) = strongly agree. Orbach and Mikulincer (1998) cite good to excellent internal consistency for these subscales in their clinical and non-clinical samples, with alpha coefficients ranging from

.75 to .92. The BIS has established construct validity and has been shown to consistently discriminate suicidal adolescent inpatients from non-suicidal inpatients and control groups (Orbach & Mikulincer, 1998).

### *Emotion Regulation Questionnaire*

The Emotion Regulation Questionnaire (ERQ; Gross & John, 2003) is a ten item self-report measure designed to assess strategies used in regulating emotions. The scale is composed of two independent factors: Cognitive Reappraisal and Expressive Suppression. Cognitive reappraisal is a strategy which involves changing the emotional impact of an event by thinking about it differently (e.g., “When I’m faced with a stressful situation, I make myself think about it in a way that helps me stay calm”). This strategy is thought to be employed prior to full activation of an emotional response and consequent behavioral and physiological change. As a result, reappraisal can be used to reduce the effect of negative emotions.

In contrast, expressive suppression involves inhibiting emotional expression (e.g., “I keep my emotions to myself”). Suppression is thought to come later in the cycle of emotion generation and exerts influence primarily over one’s behavioral response to feelings as they arise. Studies indicate the chronic use of suppression is related to negative outcomes including alienation, rumination, depression, and impairment in emotional attention and awareness (Gross & John, 2003). The ERQ items are rated on a seven point Likert scale (1 = strongly agree; 4 = neutral; 7 = strongly agree). Higher scores indicate more reappraisal and suppression, respectively. The measure showed adequate internal consistency in a sample of undergraduate students with an alpha of .79 for the reappraisal factor and .73 for the suppression factor (Gross & John, 2003). Gross and John (2003) reported a test-retest reliability estimate of .69 for both scales after a period of three months.

### *Perceived Stress Scale*

The Perceived Stress Scale (PSS; Cohen, Kamarck, & Mermelstein, 1983) was administered to determine the extent to which self-mutilators and non-mutilators appraise events in their lives as stressful, as well as their perceived resources to cope with distress. The PSS contains 14 items that were designed to assess perceptions of life events as overwhelming, unpredictable, and uncontrollable. Although the PSS specifically measures perceptions of stress over the past month, the authors contend that given the subjective nature of the scale, responses should still reflect the impact of ongoing, objective life events that contribute to respondents' levels of stress. In addition to accounting for major life events, the scale is also believed to reflect the effects of daily hassles and available coping resources on perceptions of stress. The authors contend that although high levels of perceived stress often co-occur with increases in psychological symptoms and disorders, the PSS should not be used as a direct measure of psychological symptoms. Rather, they argue that the PSS measures a psychological state that may put individuals at risk for psychological disorder. Sample items include: "In the last month, how often have you been upset because of something that happened unexpectedly?" and "In the last month, how often have you felt confident about your ability to handle your personal problems?" Items are rated on a five point Likert scale (0 = never; 4 = very often). Item scores are tallied to provide a continuous measure of perceived stress. Good internal consistency has been found in college samples (.84 - .86), while test-retest reliability in a college sample was found to be .85 (Cohen et al., 1983). Cohen et al. (1983) contend the PSS has shown sufficient concurrent and predictive validity.

### **Procedure**

All self-report measures were posted on a secure website dedicated specifically to this research study. Instructions about logging on to the website were provided on the

EDP Subject Pool website as well as the recruitment flyers and emails that were distributed about this study. Prior to completing the questionnaires, subjects read the stated purpose, benefits, and risks of the study and electronically indicated their consent. Among the possible risks, they were warned of the potentially distressing subject matter of some questions and were advised to discontinue their participation at any time if they found the material too overwhelming. After completing all of the questionnaires, a debriefing screen appeared offering further details about the study. Information and referral sources for persons who engage in self-mutilation were also listed. Information about the second part of the study (qualitative interviews) was provided after participants completed the online survey. More information about recruitment and procedures for these interviews is provided in Chapter V. The online consent form and instructions provided to participants about the online portion of this study are presented in Appendix C.

### **Data Analysis**

The Deliberate Self-Harm Inventory (DSHI) was used to differentiate participants who have engaged in self-mutilation from those who have not. Participants who failed to endorse ever engaging in the common forms of self-mutilation listed on the DSHI were included in the non-mutilating group, while those who acknowledged engaging in any of these behaviors made up the self-mutilating group. Continuous data was then screened and statistical assumptions tested. Internal consistency values for each variable were computed and factor analysis was performed on BIS items, as this instrument has not before been used with a college population. All statistical analyses were conducted using SPSS 14.0.

Logistic regression (LR) was selected as the primary statistical method for the research data. Logistic regression is similar to multiple regression as it relates a set of

predictor variables (or independent variables) to a criterion variable (or dependent variable). In LR, however, the criterion variable is categorical rather than continuous and the primary interest is in determining the probability that cases will be classified across two or more levels of the dependent variable, rather than the estimation of means as in ordinary least squares (OLS) regression (Gujarati, 2003). Thus, LR involves examining obtained versus expected frequencies for each level of the criterion variable across the independent variables. As Dallal (2001) described, LR is similar to a “chi square test for homogeneity of proportions adjusted for other variables.” LR can be applied in cases where the independent variables are nominal, ordinal, or interval data. In the case of this study, the criterion variable was the participants’ designation as self-mutilator versus non-mutilator while the predictors were those continuous variables that were hypothesized to differentiate group membership.

In LR the dependent variable is transformed into a logit variable. The logit variable represents the natural logarithm of the odds ( $\log_e$ ), which is simply the probability of being in one group divided by the probability of being in the other group. This results in a linear equation that predicts the log odds of the dependent variable (i.e., the logit). For the current data, the dependent variable was coded in such a way that the logistic regression equations predicted the log odds of cases being in the self-mutilating group (e.g., self-mutilator = 1 and non-mutilator = 0). The logit coefficients (similar to b coefficients in OLS regression) are computed using a method known as maximum likelihood estimation (MLE), which maximizes the likelihood, or probability, of obtaining the observed frequencies within groups based on the observed values of the predictor variables (Garson, 2006; Tabachnik & Fidell, 2001). The log of this probability, known as log likelihood (LL), is calculated, the residuals of the resulting function are tested, and the logit coefficients are adjusted through multiple iterations until

minimal change in the coefficients is detected. The logit coefficients (denoted as B in SPSS output) are unstandardized and represent the log odds of a response per unit of change in a predictor variable while controlling for all other variables.

For the current data, positive logit coefficients indicate an increase in the odds of being a self-mutilator, while B coefficients with negative values indicate a decrease in the odds of being a self-mutilator as the predictor increases. This relationship is often expressed by the odds ratio for ease of interpretation. The odds ratio represents the exponentiated value for each logit coefficient and reflects a change in the odds ratio per unit change in the predictor variable (Kraska & Larkins, 1999). The odds ratio serves as a measure of effect size, showing the relative importance of each predictor variable's effect on the odds of the dependent variable. For the current study, an odds ratio less than 1 signals a decrease in the likelihood of being in the self-mutilating group, while an odds ratio greater than 1 signals an increase in the odds of being in the self-mutilating group. In SPSS output, the odds ratio is denoted as  $\text{Exp}(B)$ .

The significance of an LR model can be tested by assessing the likelihood ratio (-2LL). Similar to sum of squared errors in OLS regression, the likelihood ratio is an indicator of unexplained variance in the dependent variable (Garson, 2006). The log likelihood test assesses the difference between the -2LL statistic of a full model versus the -2LL statistic for a model in which predictors have been removed. The log likelihood test of the full model versus a model with a constant only is automatically conducted in SPSS and is shown in the Model Chi Square table in SPSS output. If there is a significant difference between a logistic regression model that only includes a constant and the model including the constant plus the predictor variables, the model is said to have adequate fit and the predictor variables are reliably related to the dependent

variable. In this case, the null hypothesis that the coefficients for the variables in the full model (with the exception of the constant) are equal to zero can be rejected.

Model fit is also assessed through a chi square goodness of fit test known as the Hosmer-Lemeshow test. This test indicates how well the model fits the data compared to a model that perfectly duplicates the observed frequencies (Tabachnik & Fidell, 2001). A non-significant Hosmer-Lemeshow chi square value is desired ( $p > .05$ ), as this indicates that expected and observed frequencies are similar, suggesting there is no reliable difference between the perfect model and the model being tested. The Wald statistic indicates which individual predictors make significant contributions to the model. Predictors with significant Wald statistics are said to be reliably related to the dependent variable.

Although descriptive discriminant analysis was originally proposed as the primary statistical procedure, the many assumptions of this method proved too restrictive for the research data. For instance, initial data screening revealed skewed distributions for some variables and a violation of the multivariate normality assumption. Consequently, LR was chosen as a more appropriate method for analyzing the data. An advantage of LR is that it has a more flexible set of assumptions than other multivariate techniques. For instance, the assumptions of a linear relationship between the dependent and independent variables, distributional normality, and the homogeneity of variance of continuous variables across groups (homoscedasticity) are not required. The assumptions of LR are: (1) independent sampling of observations, (2) a linear relationship between the independent variables and the logit variable, and (3) no multicollinearity (i.e., independent variables cannot be significantly correlated) (Tabachnik & Fidell, 2001). Logistic regression is also sensitive to outliers. It is therefore recommended that outlying cases be examined and considered for removal from the analysis (Garson, 2006). The



reliability of LR decreases when there are too few cases relative to the number of variables entered into the analysis. A generally agreed upon rule is to ensure that the smallest group (or level of the dependent variable) has a minimum of ten observations per variable (Peduzzi, Concato, Kemper, Holford, & Feinstein, 1996).

## CHAPTER IV

### RESULTS

#### **The Self-Mutilating Group**

Descriptive statistics were computed based on data obtained from the DSHI, such as the age when self-mutilation began, the duration of the behavior, and reported types of self-harm. All participants included in the self-mutilating group endorsed experience with one or more of the self-harm categories listed on the DSHI and all sixteen types of self-mutilation listed on the DSHI were endorsed by at least one participant, with the exception of bone breaking. The most frequently reported self-harm behaviors were cutting, which was endorsed by 60% of the self-mutilating group, scratching, which was endorsed by 38.8% of the self-mutilating group, punching and interfering with wound healing, endorsed by 28.2% of the self-mutilating group respectively, sticking sharp objects into the skin, endorsed by 25.9% of self-mutilators, and head banging, endorsed by 21.2% of self-mutilators. Five individuals reported being hospitalized on account of their self-harm behavior. Participants' endorsements per DSHI item are presented in Table 2.

Due to the open-ended nature of some of the DSHI items, various response formats were detected across participants. This made gathering information about the extent of self-harm within this group difficult. For instance, there was no way to quantify the frequency of self-harm when participants indicated they had harmed themselves "tons" or "uncountable" times. There were 21 records such as this that included responses that could not be tallied. For the remaining 64 records, 7% reported harming themselves on only one occasion, approximately 28% reported harming themselves over ten times, and 12% reported harming themselves over fifty times. At the time they took the survey, 12% of participants reported harming themselves within the past week, 15%

within the past month, 18% within the past six months, and 17% within the past year. Participants reported quite a range in the duration of their self-harm, with 12% indicating they have been harming themselves for less than one year and over 33% indicating their self-harm persisted over five years. The mean age of onset and range for each type of self-harm is displayed in Table 3. Three types of self-harm (rubbing sandpaper, dripping acid, and scrubbing with bleach) were endorsed by only one participant. Consequently, the range for the mean age of onset for these behaviors is not presented. One surprising finding in examining the age ranges for the onset of these behaviors is the handful of participants who reported first engaging in self-harm prior to age twelve.

Table 2  
*Endorsements of Self-Mutilating Group on DSHI Items (N = 85)*

Type of Self-Harm	Number of Participants	Percentage
Cutting	51	60
Burn with cigarette	7	8.2
Burn with matches or lighter	16	18.8
Carve words	14	16.5
Carve picture, designs, or other marks	16	18.8
Severe scratching (to point of scarring or bleeding)	33	38.8
Biting (to point of breaking skin)	9	10.6
Rubbing sandpaper	1	1.2
Dripping acid	1	1.2
Scrubbing skin with bleach or other abrasive substances	1	1.2
Sticking sharp objects (excluding tattoos, piercing, or needles for drug use)	22	25.9
Rubbing glass	2	2.4
Breaking bones	0	0
Banging head (to point of bruise)	18	21.2
Punching self (to point of bruise)	24	28.2
Prevented wounds from healing	24	28.2

Table 3

*Mean Age of Onset for DSHI Items (N = 85)*

Type of Self-Harm	Mean Age Onset	Range
Cutting	15.10 ( <i>SD</i> =2.96)	7 - 25
Burn with cigarette	17.57 ( <i>SD</i> =2.23)	14 - 21
Burn with matches or lighter	15.63 ( <i>SD</i> =3.01)	12 - 21
Carve words	15.50 ( <i>SD</i> =3.21)	13 - 23
Carve picture, designs, or other marks	16.06 ( <i>SD</i> =2.93)	11 - 21
Severe scratching (to point of scarring or bleeding)	14.88 ( <i>SD</i> =2.78)	8 - 19
Biting (to point of breaking skin)	14.67 ( <i>SD</i> =3.67)	8 - 20
Rubbing sandpaper	19.0	--
Dripping acid	16.0	--
Scrubbing skin with bleach or other abrasive substances	9.0	--
Sticking sharp objects (excluding tattoos, piercing, or needles for drug use)	13.1 ( <i>SD</i> =3.29)	5 - 17
Rubbing glass	16.0	--
Breaking bones	--	--
Banging head (to point of bruise)	15.44 ( <i>SD</i> =3.60)	8 - 22
Punching self (to point of bruise)	16.29 ( <i>SD</i> =3.38)	10 - 22
Prevented wounds from healing	11.79 ( <i>SD</i> =4.50)	4 - 19

The DSHI also included an open ended item allowing participants to discuss other types of self-harm they have engaged in that were not listed in the preceding questions.

The responses spanned common, compulsive, and severe forms of self-harm. Examples included hair pulling, pinching oneself to the point of leaving bruises, flinging body parts into walls, purging, restricting food intake, and scalding oneself with hot water.

Although not all of the types of self-harm endorsed by participants on this item were in alignment with the operational definition of self-mutilation guiding this research, they are included in Appendix D as an illustration of participants' associations with the topic of self-harm.

## **Data Screening**

Prior to formal data analysis, steps were taken to increase the validity of the conclusions. The data was initially inspected for missing values. There were two cases with variable level missingness, which is defined as missing values on all items of a multi-item instrument (Fox-Wasylyshyn & El Masri, 2005). Specifically, one participant did not respond to any items on either of the PBI Father scales (e.g., Father Care and Father Overprotection), while the other participant did not respond to any items on the Perceived Stress Scale. These cases were retained in the data set, but excluded from analyses which included the variables with missing values. The remaining missing values occurred at the item level, meaning some participants omitted select items within multi-item instruments rather than an entire scale of items (Fox-Wasylyshyn & El-Masri, 2005). The data was dummy coded (0 = non-missing, 1 = missing) and the missing values were counted. Approximately 20% of cases were found to be missing less than 20% or less than 30% of items for a given multi-item scale (i.e., cases with missing values were typically missing one to two items for a selected variable). The remaining 80% of cases completed every item across all variables. Only 0.24% of items were missing for the data set as a whole. The missing values appeared to be randomly distributed throughout the data set.

A number of different methods can be employed to handle missing data, including listwise and pairwise deletion, mean substitution, regression imputation, hot-deck imputation, maximum likelihood and expectation maximization, and multiple imputation (Acock, 2005). The problem of missing values was carefully considered, as were the available methods of accounting for missing data. Unfortunately, the majority of

techniques to estimate missing values require software and expertise that exceeded the resources available to this researcher. Because of the exploratory nature of this study, as well as the inherent difficulty obtaining a sizable sample of self-mutilators, the decision was made to retain all cases with missing data in an effort to preserve statistical power. Case mean substitution was selected as the best available means of addressing item missingness within this data set. Moreover, case mean substitution has received some support in the literature.

With case mean substitution missing values within a variable are estimated using the data provided by each participant, rather than relying on data provided by the sample as a whole or subgroups within the sample. Fox-Wasylyshyn and El-Masri (2005) support this method of handling missing values for self-report measures in which all items within a specified variable are designed to measure a specific construct and are assumed to be positively correlated. In a simulation study, Downey and King (1998) found case mean substitution produced a reliable estimation of an original data set as well as accurate estimates of variable means and standard deviations when 30% or less of the data was deleted from the original set at random. Similarly, Roth, Switzer, and Switzer (1999) suggest case mean substitution can preserve power in situations where 20% of items are either randomly or systematically missing.

The data was then screened for outliers by looking for cases with standard scores greater than  $\pm 3$  for each variable. Multivariate outliers were also tested by computing Mahalanobis  $D^2$  and looking for associated probabilities that were less than or equal to .001. Identified outliers were examined for potential data entry and coding errors and were later excluded from the various statistical analyses to determine if their presence

made a noticeable difference in the results. Ultimately, the removal of outliers produced negligible differences in the results. As such, outliers were included in all statistical analyses.

As recommended by Tabachnik and Fidell (2001), distributional normality was tested for the non-mutilating and self-mutilating groups separately by dividing skewness and kurtosis statistics for each variable by their respective standard errors. Values exceeding an absolute value of 1.96 were considered non-normal distributions. However, because distributional normality is not required for logistic regression and the transformation of variables can obscure the interpretation of results, methods of transforming the data to approximate normality were not performed.

Data was screened for multicollinearity by examining tolerance values ( $1 - R^2$  of each independent variable regressed on the other independent variables) (Garson, 2006). All tolerance values were above .46 for variables in Logistic Regression Analysis I, above .61 for variables in Logistic Regression Analysis II, and above .55 for the set of seven independent variables from Analysis I and II that were entered into a final, combined logistic regression model. These results indicate multicollinearity is not a problem for this data (Garson, 2006). Having met the preliminary assumptions for logistic regression (i.e., independent sampling of observations and no multicollinearity), the data was assessed to be in adequate condition for entry into the analysis. For reference, a correlation matrix for the predictor variables in this study is included in Appendix E.

## **Factor Analysis**

Principal axis factor analysis was conducted to explore and summarize the relationship between items on the Body Investment Scale (BIS), as this measure has not before been used with a college population. The BIS was originally constructed on community and inpatient samples of Israeli adolescents (male and female) ranging in age from 13 to 19. Given the apparent differences between Orbach and Mikulincer's (1998) sample and that used in this study, it is not surprising that a slightly different factor solution emerged. BIS scores for the total number of participants recruited ( $N = 261$ ) were entered into the analysis. Cases with missing values were excluded, resulting in a total of 250 cases for the analysis. This is considered an adequate sample size for factor analysis (Tabachnik & Fidell, 2001). Seven multivariate outliers were detected by using Mahalanobis distance and computing associated  $p$  values (i.e., cases were considered outliers when  $p \leq .001$ ) (Garson, 2006). The analysis was run with and without these outliers to determine if cases with extreme responses had a significant effect on the results. The exclusion of outliers did not result in significant changes in the various factor solutions that were explored. Outlying cases were therefore retained in the analysis.

Oblique rotation using the direct oblimin method was selected to allow for correlations among the factors. Examination of the scree plot and interpretation of the factor solution were among the primary criteria used to determine which factors were to be retained. The Kaiser criterion (retaining factors with eigenvalues greater than 1) was not used as it is known to be a less accurate method of selecting factors (Velicer & Jackson, 1990). The initial solution yielded five factors explaining approximately 52% of



the shared variance of the scores. The scree plot, however, suggested a four factor solution (see Appendix F, Figure F1). Consequently, a four factor solution and a three factor solution were rotated for comparison, explaining 49% and 43% of the shared variance of the scores respectively. The pattern matrices for each of the solutions were assessed to determine which solution was the best fit. Correlation residuals (the difference between the observed correlations and the correlations produced by the factor solution) for each solution were also examined to determine the percentage of residuals with a value greater than .10. A low percentage of residuals above this value is desired, as it indicates the reproduced correlation matrix is recovering the original correlation matrix well.

The four factor solution was ultimately selected as it appeared to best correspond to Orbach and Mikulincer's (1998) factor structure and produced the most interpretable solution. As recommended by Costello and Osborne (2005), item loadings within the pattern matrix greater than or equal to an absolute value of .30 were considered for retention. This same value was used to determine if items cross-loaded on two or more factors. Items on Factor 1 (Body Image) and Factor 2 (Comfort in Touch) loaded strongly in each of the three solutions and corresponded to factor loadings reported by Orbach and Mikulincer for these factors. Items assessing body image, feelings, and attitudes as well as items assessing comfort in touch appear to be quite stable across samples.

The remaining factors proposed by Orbach and Mikulincer (1998), however, varied slightly within the current sample. Item 15 ("When I am injured I immediately take care of the wound") cross-loaded on Factors 3 and 4, and was subsequently deleted.

Similarly, item 22 (“Sometimes I purposely injure myself”) was discarded as it cross-loaded on Factor 1 and Factor 3. Item 12 (“I enjoy taking a bath”) was also dropped because it did not load highly enough on any factor. A total of six items were retained on Factor 3. All but one of these items corresponded to those originally included on this factor in Orbach and Mikulincer’s analysis. Item 24 (“I take care of myself whenever I feel a sign of illness”) originally loaded on Factor 4 (Body Protection). The inclusion of this item in Factor 3 (Body Care) in this sample seemed reasonable and it was not considered necessary to redefine the factor based on this item.

Finally, items 3, 7, and 18 loaded on Factor 4. However, the factor loading for item 18 (.309) was notably lower than loadings for the other items (.789 and .756). The reliability of the Body Protection factor was also reduced with the inclusion of item 18, with an alpha coefficient of .65 for three items versus an alpha coefficient of .76 when only items 3 and 7 were retained. Consequently, the decision was made to drop item 18 from this factor. Although factors are ideally composed of three or more items to be considered stable (Costello & Osborne, 2005), items 3 and 7 consistently loaded highly on Factor 4 and were found to have good reliability. They were therefore retained to make up the fourth factor, Body Protection. The remaining factors also demonstrated good internal consistency with alpha coefficients of .92, .85, and .71. Table 4 and 5 show the intercorrelations among factors and the factor loadings for the four factor solution. Similar tables for the three and five factor solutions are included in Appendix F.

Table 4  
*Intercorrelations Among BIS Factors, Four Factor Solution*

	Image	Touch	Care	Protect
Image	1.00	.301	.326	.210
Touch	.301	1.00	.338	.012
Care	.326	.338	1.00	.142
Protect	.210	.012	.142	1.00

Table 5  
*Rotated Factor Loadings of BIS Items, Four Factor Solution*

Item	Image	Touch	Care	Protect
10. I am satisfied with my appearance	.874			
13. I hate my body (R)	.869			
5. I am frustrated with my physical appearance (R)	.856			
16. I feel comfortable with my body	.797			
21. I like my appearance in spite of its imperfection	.745			
17. I feel anger toward my body (R)	.709			
22. Sometimes I purposely injure myself (R)	.315		.309	
12. I enjoy taking a bath				
6. I enjoy physical contact with other people		.836		
2. I don't like it when people touch me (R)		.804		
11. I feel uncomfortable when people get too close to me physically (R)		.751		
9. I tend to keep a distance from the person with whom I am talking (R)		.630		
20. I like to touch people who are close to me		.629		
23. Being hugged by a person close to me can comfort me		.570		
14. In my opinion it is very important to take care of the body			.733	
1. I believe that caring for my body will improve my well-being			.664	
8. I like to pamper by body			.532	
15. When I am injured, I immediately take care of the wound			.504	.330
24. I take care of myself whenever I feel a sign of illness			.479	
19. I use body care products regularly			.462	
4. I pay attention to my appearance			.395	
3. It makes me feel good to do something dangerous (R)				.789
7. I am not afraid to engage in dangerous activities (R)				.756
18. I look in both directions before crossing the street				.309

\* Factor loadings < .30 are not shown.

### **Reliability Analysis**

Internal consistency estimates were computed for the sample of participants for each predictor variable using coefficient alpha (see Table 6). All variables had alpha values of .70 or greater, indicating high intercorrelation of items within each scale. The DSHI was also found to have strong internal consistency,  $\alpha = .78$  (Kuder-Richardson Formula 20).

Table 6  
*Internal Consistency Estimates for Predictor Variables*

Scale	Alpha Coefficient	Scale	Alpha Coefficient
Mother Care	.93	Body Image	.92
Mother Overprotection	.88	Comfort in Touch	.85
Father Care	.94	Body Care	.71
Father Overprotection	.88	Body Protection	.76
Separation Anxiety	.80	Cognitive Reappraisal	.86
Engulfment Anxiety	.80	Expressive Suppression	.80
Dependency Denial	.87	Perceived Stress	.90

### **Analysis of Data**

Logistic regression analysis was conducted to determine if the variables of interest could predict whether participants belong to the self-mutilating versus non-mutilating group. The decision to run two separate analyses was made according to the underlying conceptual and theoretical inter-relationships among the variables. The intrapsychic variables concerning parental representations and separation-individuation conflicts were entered into the first analysis, while the more symptomatic and behavioral variables of body investment, emotional regulation, and subjective stress were entered into the second analysis. Thus, the first analysis assessed the predictive power of Mother Care, Mother Overprotection, Father Care, Father Overprotection, Separation Anxiety, Engulfment Anxiety, and Dependency Denial. The second analysis assessed the predictive power of Body Image, Comfort in Touch, Body Care, Body Protection, Cognitive Reappraisal, Expressive Suppression, and Perceived Stress.

For these initial analyses, an alpha level of .10 was set as the criterion for statistical significance. Predictors that met this criterion were included in a final logistic regression analysis, where an alpha of .05 was used. With each of these analyses, the number of cases per variable for the self-mutilating group (which was the smallest group) exceeded the minimum recommended value of ten, thereby minimizing the inflation of standard error that can occur when the number of cases per variable is insufficient (Garson, 2006; Peduzzi et al., 1996). The predictor variables were entered into the equation simultaneously for all analyses, as there were no particular hypotheses about which predictors were more important. With this method of entry, each predictor is treated as if it were the final variable entered into the model and is assessed for the contribution made beyond that of the other variables (Tabachnik & Fidell, 2001).

The Box-Tidwell Transformation Test was performed on all predictor variables to test the assumption of a linear relationship between these variables and the logit variable. This involves taking the cross-product of each predictor variable multiplied by its natural logarithm and adding the resulting variable as an interaction term in the logistic regression model (i.e., [variable] x ln[variable]) (Garson, 2006; Hosmer & Lemeshow, 1989). Thirteen of the fourteen transformations were not significant, indicating the variables are linearly related to the logit. The transformation for the Comfort in Touch variable, however, was significant, indicating this variable is not linearly related to the logit in the regression model. Another LR was then run replacing the Comfort in Touch variable with its natural logarithm and the linearity assumption was re-tested (Tabachnik & Fidell, 2001). The test was not significant, indicating a linear relationship between the transformed variable and the logit. The regression model in which this variable was transformed, however, did not differ greatly from the original analysis (see Appendix G). As such, the untransformed variable was retained and the original logistic regression model was analyzed.

### **Analysis I**

The first analysis included the following predictor variables of group membership: Mother Care, Mother Overprotection, Father Care, Father Overprotection, Separation Anxiety, Engulfment Anxiety, and Dependency Denial. Outliers were identified by examining the discrepancy between observed and expected probabilities, which appear in SPSS as standardized residuals (Garson, 2006). Five cases with standardized residuals greater than  $\pm 3$  were considered outliers. The analysis was run with and without outliers to determine the effect of unusual cases on the results. The omission of outliers revealed the same pattern of significance within the predictor variables as when outlying cases were

retained. The five outlying cases were therefore retained in this analysis for a total sample size of 260 cases composed of 176 non-mutilators and 84 self-mutilators.

A test of the full model with all seven predictors and a model containing only a constant indicated the set of predictor variables make a statistically significant improvement in predicting group membership,  $\chi^2(7, N = 260) = 57.496, p < .001$ . The results indicate that one or more of the coefficients for the predictor variables entered into this analysis are different from zero. The Hosmer-Lemeshow Test was not significant, indicating the full model was an adequate fit,  $\chi^2(8, N = 260) = 5.593, p = .693$ .

Regression coefficients, Wald statistics, odds ratios, and the 95% confidence intervals of the odds ratio for each predictor variable are presented in Table 7. The variables of Mother Care ( $z = 7.347, p = .007$ , odds ratio = .476), Father Overprotection ( $z = 5.248, p = .022$ , odds ratio = 2.046), and Separation Anxiety ( $z = 9.638, p = .002$ , odds ratio = 2.431) met the Wald criterion for significance, indicating that these variables reliably predict group membership. The variables of Mother Overprotection, Father Care, Engulfment Anxiety, and Dependency Denial did not approach significance.



Table 7

*Logistic Regression Analysis I: Group Membership as a Function of Intrapsychic Variables (N = 260)*

Variables Interval	B	Standard Error	Wald Test (z-ratio)	Sig.	Exp(B)	95% Confidence for Exp(B)
Mo Care	-.743	.274	7.347	.007	.476	.278 – .814
Mo Protect	-.437	.345	1.604	.205	.646	.329 – 1.270
Fa Care	-.268	.219	1.497	.221	.765	.497 – 1.175
Fa Protect	.716	.312	5.248	.022	2.046	1.109 – 3.774
Sep Anx	.888	.286	9.638	.002	2.431	1.388 – 4.260
Eng Anx	-.026	.270	.009	.924	.975	.575 – 1.653
Dep Den	.327	.304	1.152	.283	1.386	.764 – 2.517
Constant	-1.392	2.144	.422	.516	.248	

## **Analysis II**

The second logistic regression analysis included the predictor variables of Body Image, Comfort in Touch, Body Care, Body Protection, Cognitive Reappraisal, Expressive Suppression, and Perceived Stress. These variables represent behavioral or symptomatic features that may discriminate between self-mutilators and non-mutilators. Like the first logistic regression, four outliers were detected by identifying standardized residuals in SPSS output greater than  $\pm 3$ . The analysis was run with and without outliers to determine the effect of unusual cases on the results. Again, the omission of outliers revealed the same pattern of significance among the predictor variables. As such, the four outliers were retained in this analysis for a total sample size of 260 cases composed of 176 non-mutilators and 84 self-mutilators.

A test of the full model with all seven predictors and a model containing only a constant indicated the set of predictor variables make a statistically significant improvement in predicting group membership,  $\chi^2(7, N = 260) = 62.270, p < .001$ . The results indicate that one or more of the coefficients for the predictor variables entered into this analysis are different from zero. The Hosmer-Lemeshow Test was not significant, indicating the full model adequately fit the data,  $\chi^2(8, N = 260) = 3.251, p = .918$ . Regression coefficients, Wald statistics, odds ratios, and the 95% confidence intervals of the odds ratio for each predictor variable are presented in Table 8. The variables of Body Care ( $z = 4.103, p = .043$ , odds ratio = .524), Body Protection ( $z = 14.442, p < .001$ , odds ratio = .544), and Perceived Stress ( $z = 3.880, p = .049$ , odds ratio = 1.879) met the Wald criterion for significance, indicating that they are statistically significant predictors of group membership. The variables of Comfort in Touch, Cognitive Reappraisal, and

Expressive Suppression were not significant. The variable of Body Image, however, approached significance ( $z = 2.889$ ,  $p = .089$ , odds ratio = .748).

Table 8

*Logistic Regression Analysis II: Group Membership as a Function of Behavioral/Symptomatic Variables (N = 260)*

Variables Interval	B	Standard Error	Wald Test (z-ratio)	Sig.	Exp(B)	95% Confidence for Exp(B)
Body Image	-.291	.171	2.889	.089	.748	.535 – 1.046
Touch	-.237	.232	1.041	.308	.789	.500 – 1.244
Body Care	-.646	.319	4.103	.043	.524	.281 – .979
Body Protection	-.609	.160	14.442	.000	.544	.397 – .745
Reappraisal	.029	.152	.036	.850	1.029	.763 – 1.388
Suppression	.169	.128	1.733	.188	1.184	.921 – 1.523
Stress	.631	.320	3.880	.049	1.879	1.003 – 3.51
Constant	3.982	2.124	3.516	.061	53.633	

### **Combined Model**

Logistic regression analysis was then run combining the significant predictors from the two previous analyses. The combined model included the following variables which were found to be significant predictors of group membership: Mother Care, Father Overprotection, Separation Anxiety, Body Care, Body Protection, and Perceived Stress. The Body Image variable was also retained because the alpha level for this variable ( $p = .089$ ) was less than the alpha level established for excluding variables from the combined model ( $p \geq .10$ ). Seven cases were identified with standardized residuals greater than  $\pm 3$ . Six of the seven outliers were self-mutilators. In further examining these cases, their scores on Father Overprotection, Separation Anxiety, and Perceived Stress were found to be unusually low compared to their group means on these variables. The six outlying self-mutilating cases also tended to have unusually high scores on Body Image and Body Care variables compared to their group average.

Outliers were omitted to determine their effect on the results. The same pattern of significance among the variables was found with and without outliers, although Perceived Stress was found to be marginally significant when the outliers were removed ( $p = .056$ ). The models with outliers retained and omitted are shown in Tables 9 and 10 for comparison. Ultimately, the model in which outliers were retained was interpreted.

Table 9

*Logistic Regression Analysis: Group Membership as a Function of Combined Variables, Outliers Retained (N = 259)*

Variables Interval	B	Standard Error	Wald Test (z-ratio)	Sig.	Exp(B)	95% Confidence for Exp(B)
Body Image	-.182	.187	.942	.332	.834	.577 – 1.204
Body Care	-.636	.312	4.161	.041	.529	.287 – .975
Body Protection	-.677	.167	16.420	.000	.508	.366 – .705
Father Protection	.767	.288	7.111	.008	2.153	1.225 – 3.782
Mother Care	-.783	.267	8.598	.003	.457	.271 – .771
Sep Anxiety	.656	.318	4.265	.039	1.927	1.034 – 3.592
Stress	.492	.346	2.018	.155	1.635	.830 – 3.221
Constant	2.255	2.187	1.064	.302	9.537	

Table 10

*Logistic Regression Analysis: Group Membership as a Function of Combined Variables, Outliers Removed (N = 252)*

Variables Interval	B	Standard Error	Wald Test (z-ratio)	Sig.	Exp(B)	95% Confidence for Exp(B)
Body Image	-.209	.205	1.044	.307	.811	.543 – 1.212
Body Care	-.936	.355	6.943	.008	.392	.195 – .787
Body Protection	-.843	.192	19.218	.000	.431	.295 – .628
Father Protection	1.223	.340	12.933	.000	3.399	1.745 – 6.621
Mother Care	-.972	.296	10.800	.001	.378	.212 – .676
Sep Anxiety	1.071	.368	8.492	.004	2.919	1.420 – 6.001
Stress	.744	.390	3.640	.056	2.105	.980 – 4.523
Constant	1.465	2.363	.385	.535	4.329	

The logistic model in which outliers were retained was composed of 176 non-mutilators and 83 self-mutilators. A test of the full model with all seven predictors and a model containing only a constant indicated the set of predictor variables made a statistically significant improvement in predicting group membership,  $\chi^2(7, N = 259) = 79.925, p < .001$ . The results indicated that one or more of the coefficients for the predictor variables entered into this analysis was different from zero. The Hosmer-Lemeshow Test was not significant, indicating the full model was an adequate fit,  $\chi^2(8, N = 259) = 4.106, p = .847$ . Regression coefficients, Wald statistics, odds ratios, and the 95% confidence intervals of the odds ratio for each predictor variable are presented in Table 9. Body Care ( $z = 4.161, p = .041$ ), Body Protection ( $z = 16.42, p < .001$ ), Mother Care ( $z = 8.598, p = .003$ ), Father Overprotection ( $z = 7.111, p = .008$ ), and Separation Anxiety ( $z = 4.265, p = .039$ ) emerged as significant predictors of self-mutilation when controlling for the other predictors in the model.

Two of the significant predictors had odds ratios greater than 1, indicating the odds of self-mutilation increase as these variables increase. Results indicate self-mutilators are more likely to perceive their fathers as encouraging of autonomy compared to non-mutilators (odds ratio = 2.153, 95% confidence interval = 1.225 – 3.782), with the odds of self-mutilation being 2.153 times greater with every one point increase in Father Overprotection. When the odds ratio for this variable is converted into a percent  $([\text{Exp}(B) - 1] \times 100)$ , the results indicate a 115% increase in the odds of self-mutilation per every one point increase in Father Overprotection. It should be noted that this variable was coded in such a way that a one point increase in Father Overprotection signaled greater encouragement of autonomy. Self-mutilators were also more likely to

exhibit separation anxiety compared to non-mutilators (odds ratio = 1.927, 95% confidence interval = 1.034 – 3.592), with the odds of self-mutilation being 1.927 times greater with every one point increase in Separation Anxiety. This signals a 93% increase in the odds of being a self-mutilator per unit increase in Separation Anxiety.

Three of the significant predictors had odds ratios less than 1, indicating the odds of self-mutilation decreased as these variables increased. Results indicate self-mutilators are less likely to perceive maternal care as affectionate compared to non-mutilators (odds ratio = .457, 95% confidence interval = .271 - .771). Taking the inverse of the odds ratio indicates that the odds of self-mutilation increase by a factor of 2.19 with every one point decrease in Mother Care on the Likert scale. Alternatively it can be said that the odds of self-mutilation decrease by 54% with every one point increase in Mother Care.

Additionally, the results indicate self-mutilators are less likely to care for their bodies compared to non-mutilators (odds ratio = .529, 95% confidence interval = .287 - .975). With every one point decrease in Body Care, the odds of self-mutilation increase by a factor of 1.89. In other words, the odds of self-mutilation are 47% less likely per one point increase in Body Care. Self-mutilators were also found to be less likely to protect their bodies compared to non-mutilators (odds ratio = .508, 95% confidence interval = .366 - .705). With a one point decrease in Body Protection, the odds of self-mutilation increase by a factor of 1.97. Alternatively, the odds of self-mutilation are 49% less likely as Body Protection increases by one point on the Likert scale. Finally, the results indicate that self-mutilators are more likely to endorse negative body image and increased perceptions of stress compared to non-mutilators. These trends, however, were not statistically significant in this analysis.



## **CHAPTER V**

### **THE PHENOMENOLOGY OF SELF-MUTILATION:**

#### **A CRITICAL REFLECTION OF QUALITATIVE INTERVIEW DATA**

The second part of this study involved qualitative interviews with a small number of participants who identified as self-mutilators. The purpose of these interviews was to better understand the phenomenology of self-mutilation among the types of women sampled in this study. The primary goal of each interview was to distill the underlying meaning of the behavior for each participant, as well as her understanding of her experience. Ultimately, the hope was that through the process of initiating dialogue about this issue, others might better understand the dynamics at work in self-mutilation and develop greater sensitivity for those who engage in this behavior.

A phenomenological approach was selected as a means of uncovering the personal dynamics that inform experiences of self-mutilation. This method of inquiry offers additional sources of information that are not easily gleaned from quantitative, empirical procedures. In contrast to the fixed response format of Likert scale instruments, engaging participants in interviews allows them to emphasize the aspects of their experience that they feel are important (Kvale, 1983). Phenomenological research has been argued to be a more sensitive approach that is observant of materially evident phenomena, as well as the unacknowledged subjective and intersubjective vicissitudes of private experience (Giorgi, 1983). Extending this method of inquiry to the study of self-mutilation, therefore, has great potential to enrich our understanding of this phenomenon.

The primary focus of this type of interview is the lived experience, or life world, of each participant, with the over-riding goal of arriving at a deeper understanding of the personal meaning of the phenomena being investigated (Kvale, 1983). The phenomenological interview is interested in garnering qualitative, descriptive data that is

specific and personal rather than generalized. It is a process oriented form of research in which there is a reciprocal exchange between the researcher and participant (Sardello, 1971). As Kvale (1983) described,

In relation to conversations in everyday life the qualitative research interview is characterized through a methodological consciousness of question forms, a consciousness of the dynamics of interaction between interviewer and interviewee, and a critical consciousness towards that which is said and interpreted (p. 179).

The researcher gathers descriptive information by phrasing questions that direct participants to their own experience and asking for detailed accounts of this experience (Polkinghorne, 1989). It may be assumed that participants are naïve about psychological matters and that there are aspects of their experience of which they are not fully aware (Giorgi, 1983). It is the researcher's interest to make these implicit psychological dynamics more apparent. Giorgi (1983) argued that the research participant conveys more than he or she is consciously aware of. By virtue of his or her distinct perspective, the researcher is thus able to perceive these meanings and works to make them more explicit. Within this context, the researcher can seek clarification to further encourage the participant to enrich their description, as well as to ensure adequate understanding of what the participant is trying to convey.

The researcher makes every attempt to suspend preconceptions or theoretical ideas about the experience in question in order for the individual meaning of the experience to emerge for each participant. Additionally, the researcher suspends any hypotheses he or she holds about the phenomena in order to more fully attend to what emerges during the interview process and to allow meaning to organically unfold (Polkinghorne, 1989). As such, inherent in phenomenological research is an element of

discovery in which the researcher assumes the role of participant observer (Romanyshyn, 1971). This allows the researcher a special vantage. As Fischer (1974) described, "...a phenomenological psychologist tries to situate himself vis-à-vis phenomena so that they can show themselves in their own language, that is, in the very ways in which they typically show themselves" (p. 406). The phenomenological methodology requires the researcher to be actively engaged in each participant's unique narrative, while also remaining sufficiently detached in order to discern between objective and subjective reactions elicited by the material. Ainslie (1995) likens the approach to an amalgam of ethnographic and psychoanalytic inquiry in which the researcher must simultaneously employ empathic attunement and "critical reflection."

Interview material using this methodology is typically audiotaped and transcribed. The transcripts, or protocols, for each participant are carefully reviewed, both individually and all together, for themes that emerge from the descriptions. The researcher then attempts to articulate the identified themes by transforming the participants' language to his or her own, with particular emphasis on the psychological meaning of the described experience. Thus, the interpretive process involves moving from the participants' naïve descriptions, to the researcher's close analysis from a phenomenological perspective, and finally to a new description of the material that is imbued with psychological language and understanding (Giorgi, 1983).

### **Recruitment**

After completing the online questionnaire, a screen appeared thanking participants and informing them about the interview component of this study (see Appendix C). It was explained that the researcher was interested in conducting in-person, individual

interviews to further understand self-harm behavior in college women. To be eligible for an interview, participants were informed that they must have engaged in self-harm behavior at some point during their college years. The definition of self-harm used in this study as well as examples of the behavior were offered to help participants discern their eligibility. Participants who were interested in learning more about the interviews were directed to another screen containing a cover letter about this part of the study (see Appendix H). More details were provided, such as the fact that interviews would be audiotaped with participants' permission and would last approximately 45 minutes to one hour. Participants were informed that a gift certificate would be given to all individuals who completed an interview.

Interested participants were asked to type their name and preferred contact information so the researcher could contact them about the possibility of participating in an interview. They were informed that by doing so they were allowing the researcher to review their responses from the online questionnaire to ensure their eligibility. Eligibility for an interview was assessed by reviewing responses to the Deliberate Self-Harm Inventory (DSHI). To be eligible, participants must have endorsed at least one type of self-harm listed on the DSHI and have engaged in the behavior during their college years. Preference was given to individuals whose DSHI responses reflected a repetitive pattern of behavior and who appeared to engage in more severe forms of self-harm. Participants were informed that only a small number of interviews would be conducted and that not everyone who indicated interest would be invited to participate. Thirty-three individuals indicated interest in the interview portion of the study. Seventeen women were contacted via email to schedule an interview. Nine of these individuals did not reply or canceled

their scheduled interview. A total of eight interviews were conducted. Participants who were not contacted for an interview received email notification of their interview status.

### **Procedure**

Prior to beginning the interviews, all participants signed a consent form (see Appendix H) and were reminded of the voluntary nature of the study as well as the limits of confidentiality. They were informed that they could decline to answer questions if they felt uncomfortable doing so and that they could discontinue their participation at any time without penalty or adverse consequences. All interviews were completed in-person on an individual basis and were conducted solely by the principal investigator, an advanced doctoral student in Counseling Psychology. The interviews lasted approximately one hour each to allow time for participants to discuss their experiences in depth.

In line with the phenomenological interview methodology outlined above, descriptive information was gathered by asking questions that directed the participants to their own experience and asking for detailed accounts of this experience (Bullington & Karlsson, 1984). For instance, all participants were asked to describe a specific instance of self-injury in detail and to do so in a way that would help someone else understand what the experience was like for them. Examples of other questions that were asked to facilitate reflection and conversation about the topic of self-harm are included in Appendix I. Additional questions evolved based on each individual's responses and were aimed at directing the participants to offer greater specificity and detail about their experiences. Follow up questions also allowed the researcher to clarify and ensure adequate understanding of the participant's conveyed meaning.

The audiotaped interviews were then transcribed and carefully reviewed for salient themes and interpretations. The protocols were first read individually in order to gain an overall sense of the material. They were each read again several times, with the researcher making notes, recording associations, and looking for themes. A matrix was developed to help organize and compare material across identified topic areas and participants (see example in Appendix J). The researcher then attempted to articulate the identified themes and make explicit the psychological meanings regarding the experience of self-injury that were present in the protocols. The interrelationships between the whole protocol and various identified themes, as well as the group of protocols all together were then described. Quotes from each participant were highlighted that best captured the identified themes. In the current study, the researcher was also interested in examining participants' accounts of their experiences as a means of both situating and critiquing the self-mutilation literature.

Approaching subjects with genuine interest, curiosity, and without judgment helped to facilitate the exploration of their experiences with self-harm. In most cases, this approach was also found to facilitate quite candid conversation. Interview participants were informed that the overriding purpose of the interviews was to allow them the opportunity to discuss their experiences in their own words and every effort was made to create a safe environment for them to do just that. The self-selection inherent in the recruitment process also appeared to facilitate participants' comfort in self-disclosing their experiences.

## **Participants**

Eight women who identified as self-mutilators participated in the interview component of the study. Technical difficulties interfered with audiotaping during one of these interviews. Consequently, this interview was not able to be transcribed and was not included in the qualitative analysis. The remaining seven interviewees were all women from the University of Texas who ranged in age from 18 to 22. Three of the participants were freshman, one was a sophomore, two were juniors, and one was a senior. Two participants identified as Hispanic, while the remaining participants identified as Caucasian/European American. Three participants were originally recruited through the EDP Subject Pool and four were recruited through flyers. All participants reported experience with mental health treatment of some kind. Two participants reported a history of sexual abuse. An introduction to the women follows to aid the reader in following the interpretation of the interview material. For their own protection, the interviewees were assigned pseudonyms.

*Abby* is a 21-year-old Hispanic senior who first harmed herself at age 13 by carving on her stomach. Although she engaged in multiple types of self-harm behavior in middle school, high school, and college, she identified purging to be her most persistent coping mechanism. She has not engaged in self-injury since her sophomore year of college. She comes from an intact family that relocated frequently throughout her childhood, including living abroad. She described herself as “the type to always have a boyfriend” and indicated romantic relationships have been the only area in her life where she has experienced significant conflict.

Bianca is a 19-year-old Caucasian freshman who reported first engaging in self-injury as a junior in high school. She identified cutting as her primary form of self-harm. She is from an intact family and indicated she has struggled with depression since age 15. She emphasized her experience of depression is central to who she is. She reported previously spending a week in an inpatient psychiatric facility as a high school student.

Ellen is a 19-year-old Caucasian freshman who identified binge eating, which began at age 14, as her primary form of self-harm. When she is unable to binge, she resorts to picking her skin to the point of leaving scars. She said she continues to engage in both of these behaviors. She comes from an intact family and stated her self-harm behaviors have felt like the only way she can rebel against her parents.

Helen is a 20-year-old Caucasian sophomore who first cut her wrists at age 13. This is the only form of self-mutilation she has engaged in and the only part of her body she has targeted. She described a nomadic childhood as a member of a family that moved around frequently. Her family remains intact and she indicated her parents moved out of state when she entered college. She alluded to identity struggles, stating “I feel kind of lost as to who I am right now.” She indicated this interview was her first experience ever talking about her self-injury. She last cut herself two weeks prior to this interview.

Kris is an 18-year-old Caucasian freshman who started cutting herself in eighth grade and continued to do so in high school and now in college. She comes from an intact family and described herself as a “pretty normal, productive person.” She emphasized her involvement in numerous campus activities, as well as her status as an honors student. She also described herself as having obsessive compulsive tendencies.



Lana is a 20-year-old Caucasian junior who began harming herself at age 16. Although she has engaged in multiple forms of self-injury, cutting has been her preferred form. She indicated she comes from a large, blended family and has five brothers and sisters (through multiple marriages). She also said she currently lives with her boyfriend. She indicated in her demographic survey that she was sexually abused (although not by her parents), but did not discuss this experience during her interview. She described a significant period of drug abuse in college that co-occurred with her cutting.

Lynn is a 22-year-old Hispanic and fifth year junior who first engaged in self-injury as a college student and was hospitalized due to her urge to self-harm. She grew up primarily with her mother and sister in a small town. Her parents divorced when she was very young and she was pressed to recall memories of her parents when they were together. Over the years Lynn has had minimal contact with her father, whom she reported sexually abused her when she was too young to even remember. She has not engaged in self-injury for about nine months.

### **Qualitative Analysis**

The qualitative analysis begins with a description of some of the basic “facts” and details about the participants’ experiences with self-injury. The women reported engaging in numerous types of self-injury including cutting, burning, scratching, carving, punching and banging walls, sticking oneself with pins, skin picking, hitting, and pinching oneself to the point of leaving bruises. This is consistent with literature accounts that self-mutilators often rely on multiple methods of self-harm and may inflict harm on multiple body parts (Briere & Gil, 1998; Favazza, 1992; Favazza, 1989). All participants identified particular body parts they preferred to focus on (e.g., stomach,

thighs, wrists, and arms) and various instruments they used to inflict injury (e.g., knives, razors, scissors, safety pins, tacks, pliers, lighters, and candles). Their basic descriptions of their self-harm behavior corresponded to characterizations of impulsive self-mutilation found in the literature, including the occurrence of the behavior over multiple episodes, the duration of the behavior over a span of several years, and efforts to keep evidence of self-harm hidden from others (Favazza, 1996; Simeon & Favazza, 2001). Similarly, the commonly cited correlation between impulsive self-mutilation and other, less direct forms of self-harm was also supported in participants' descriptions of co-occurring eating disordered symptoms and substance abuse. Two women indicated their self-mutilative behaviors were secondary to eating disordered behavior, specifically binge eating and purging, while three women discussed their history with substance abuse.

For the most part, the women's self-harm behaviors seemed to fall in the impulsive category, as defined by Simeon and Favazza (2001). One participant, however, described a pattern of self-harm that appeared to more closely resemble the compulsive form of this behavior. She described a habitual pattern of skin picking and "over-grooming," indicating that without much conscious awareness she locates minor skin blemishes and picks at them to the point of leaving red, blotchy marks. She described engaging in this behavior hundreds of times, without much distinction between the various episodes. Unfortunately, it was discovered after the fact that this interview did not record and it was consequently unable to be transcribed and analyzed to the extent of the other interviews, leaving many questions about her experience unanswered. Kris's experiences with self-harm also reflected elements of compulsive self-mutilation, as she

described herself as “borderline OCD” and associated her self-harm with the other rituals she performs. These findings may reflect some overlap in the compulsive and impulsive subtypes of self-harm that have not yet been addressed in the literature. At the same time, this may also indicate the inability of the DSHI to discriminate between the various categories of self-harm (i.e., major, stereotypic, compulsive, and impulsive), pointing to subtle instrumentation adjustments that may need to be made in future empirical investigations.

The age of onset of the women’s self-harm behaviors ranged from 13 to 22, with everyone but Lynn indicating they began self-injuring prior to entering college. Participants’ initiation into self-injury was quite varied and their descriptions of how they came to adopt this behavior offers interesting information about the onset of self-harm that is typically not well documented. For instance, three of the women reported knowing of others who engaged in self-injury before adopting the behavior themselves. Initially, these women tended to have negative reactions to the idea of self-harm, reflecting an underlying dissonance associated with this behavior. Lana, for instance, recalled learning her younger sister was cutting herself about a year before she started. She recalled feeling “horrified,” stating, “I couldn’t believe that somebody would do it and then ironically...I actually started doing it myself.” When she was twelve, Abby was aware that one of her friends was purging and cutting. She believes this is how she got the idea these behaviors could make her feel better when she was upset. Kris described how she was first exposed to cutting in the eighth grade:

One of my friends came up to me in the locker room and she had cuts all over her arm. She just sort of showed it to me and said, “All my friends want me to stop doing this.” I was like “What are you doing?” She said she had done it to herself. I just thought that was really weird at first.

Despite her initial reaction, Kris indicated the behavior soon became a fad within her school to which she was not immune. Kris's account in particular reflects the potential peer influences that have been found to be associated with the initiation of self-injury in young adolescents as well as adolescents in institutional settings (Crouch & Wright, 2004; Fennig, Carlson, & Fennig, 1995; Ross & McKay, 1979; Taiminen et al., 1998; Walsh & Rosen, 1988).

For some, the initiation into self-injury was rather impulsive. Lana, for example, described the urge to cut herself as a "strange sort of compulsion." Bianca described her first cutting incident as an "uncontrollable, random impulse." Both Helen and Lynn, however, contemplated the behavior heavily before trying it. Lynn recalled a gradual build up to the point where she first drew blood with a knife:

I would sort of think about the knife and I knew where it was and I knew where I'd do this because I had a roommate at the time...so I knew where I would take it. When she wasn't home I started out just feeling the metal on my skin...and finally it got to where I was cutting myself, very lightly mind you, but it still drew blood.

Some of the women described less severe forms of self-injury that gave way to more serious types, like cutting. Examples include punching walls, poking oneself with safety pins, head banging, and light scratching on the surface of the skin. Many reported going through intervals where their self-injury ceased, at least for awhile. Helen reported periods of years between her incidents of self-harm. Bianca abstained from cutting for about one year after receiving inpatient treatment. Over time her depression worsened, however, and she resumed cutting to offer some relief. As she described it, "The reason I started cutting myself again was because there wasn't a huge improvement in feeling better when I didn't do it. The motivation was kind of dissipated." Lana described a variable pattern to her self-injury including periods where she engaged in the behavior

infrequently and others where she cut herself multiple times per day. “I’ve always gone through periods where I won’t do it for months and then I’ll do it really badly,” she said. The variable and seemingly unpredictable course of self-injury for these women seems of particular clinical importance. Their accounts suggest that someone who has not harmed themselves in several months or even longer, might still be at significant risk for future self-injury.

### **Triggers to Self-Mutilation**

Ruptures in interpersonal relationships and concerns about not fitting in emerged as common precipitants of self-mutilation. Experiences of isolation, loss, and rejection also appeared to contribute to the behavior, reiterating literature accounts of actual and anticipated experiences of interpersonal loss as a primary predictor of adolescent self-mutilation (Rosen et al., 1990; Walsh & Rosen, 1988) and pointing to empirical findings from the current study suggesting self-mutilators are prone to experience separation anxiety. For many of the women, sensitivity to loss was exemplified in descriptions of fights with boyfriends and family conflict as triggers for self-injury. Bianca, for instance, began cutting after enduring a difficult break up with her boyfriend. In the process she reported also losing several of her friends, as she and her boyfriend shared many friends in common. “I was struggling with feeling like I was trapped inside of my home,” she said. “You know the phone used to ring all the time and it stopped ringing. I just felt lonely and kind of unhappy with life.” Regarding dynamics within her extended family, Helen recalled feeling outcast, stating, “I just felt like I didn’t belong...and they [her cousins] didn’t want me around.” Her cousins’ rejection triggered her first instance of self-mutilation.

Lana cited family dynamics as the trigger for her initiation into self-injury. She described her home environment as disruptive and emotionally abusive due to the presence of her stepfather. She recalled:

He [stepfather] used to yell a lot...I mean like really horribly. And back then you're in high school so there's really no where to go...I used to get really upset when he would yell and stuff and it got to be where like when he was yelling...if I was thinking, *Oh, when he's done I'll go upstairs and cut myself*, I wouldn't get upset at the time.

Her recollection reflects the manner in which self-injury became internalized as a powerful means of self-soothing and points to the pre-transitional function of the behavior identified by Farber (2000). More recently, Lana indicated she cuts herself when things are “chaotic,” when she’s feeling out of control, when she’s having a strong emotional response, or when she’s overwhelmed by trivial obligations and responsibilities.

Kris indicated isolation and feeling as if there was no one she could talk to could trigger self-injury for her when she was in high school. She described an incident after a hurtful break up with a boyfriend where she carved her name onto her leg. “I wanted to be reminded that I didn’t need him,” she said. “I just felt like my whole life was out of control.” Although Kris’s initiation into self-injury was predicated on a social fad and concerns about fitting in, the behavior progressed to represent something much more personal. In high school she indicated she went through periods where she cut everyday as a means of dealing with emotional pain and stress, usually related to interpersonal relationships. She indicated her cutting has since evolved into more of an “obligation”:

It feels almost like working out...like I haven’t exercised... I haven’t self-injured in a long time so it’s probably time again...so I should probably just do that and get it over with and I can perform the rest of my tasks for the day. But now it’s normally at night, so it’s I guess, now I can go to sleep.

Lynn articulated complex interpersonal dynamics that triggered her first depressive episode and ultimately self-injury. In addition to a very difficult breakup with her boyfriend, Lynn's transition to college led to an eventual rupture in her relationship with her mother. While she referred to the separation from her mother as a significant stressor, she had difficulty articulating this conflict, despite allusions to feelings of abandonment:

We were extremely close when I was in high school because that's all I had. She was all I had... When I was going through all this stuff, I mean really, really bad depression, my mother was just like, "I don't want to deal with it"... she was like, "I'm stepping out"...so I mean I lost the number one person I had in my life.

Lynn's depression worsened as she lost touch with her mother and she began engaging in other self-destructive behaviors (e.g., heavy alcohol use and promiscuous sex) before she began cutting herself. "I didn't have her...and then I was losing my boyfriend," she said. "Everything was slipping away from me. I just didn't care about me at all." Lynn's statements echo Asch's (1971) observation that the loss of the mother, signified by the adolescent separation-individuation process, is experienced by some as a crisis, which self-mutilation is employed in an attempt to overcome.

### **Functions of Self-Mutilation**

The literature identifies a variety of functions served by self-mutilation. These include the use of self-mutilation to express and control emotions and needs (i.e., affect regulation), to end states of depersonalization or dissociation, to affirm physical and psychic boundaries, to manage sexual and aggressive impulses, and as a response to peer group influences and other forms of social reinforcement (Suyemoto, 1998). The functions of self-injury described by participants closely mirrored some, but not all, of those found in the literature. The various forms of self-injury described by each of the women served the unanimous purpose of helping them to manage emotional distress. A pattern of emotional avoidance and inhibition was alluded to by many of the women.

Bianca, for instance, described her tendency to “bottle up emotions” for fear of losing control. Helen discussed keeping her feelings to herself until they build up to the point where she experiences pressure and tension in her body. Descriptions of self-injury as a method of tension release as well as a method of “letting the pain out” and regaining a sense of control were common. The tendency to doubt their ability to cope with emotional issues, as well as perceptions of being far more sensitive than others was highlighted. For instance, Bianca stated, “I feel things more strongly than most people...or at least the bad emotions much more powerfully than the average person.” Similarly, Abby said:

I’ve just never been able to cope well with emotional issues...My mom and my grandmother are very anxious people. They worry about everything and they’re always coming to me and telling me about their worries. I think I get that worry gene from them. So any kind of issue that happens to me affects me like ten times more than it would someone else...I think it kinds of makes me a weaker kind of personality to have to do things like that to deal with pain.

The women consistently spoke to the efficacy and immediacy of self-harm in relieving emotional pain. Moreover, the effect of self-injury was described as more powerful than other methods of emotional release, including using a punching bag, writing in a journal, and talking to others. Their accounts suggest self-injury is a form of action language, as described by Blos (1967), by offering an expedient and concrete means of reducing discomfort as an alternative to passively succumbing to such feelings. Because it is so effective, it is not surprising that self-injury develops into a repetitive pattern that can span several years. As Helen described, “I just feel so much is inside of me that needs to get out and at that particular moment in time that’s the only way to get it out.” For some, the unique effect of cutting in particular was related to its function as a “quick fix.” The immediate effect after self-injuring was frequently described as a sense of calm and a renewed sense of control that allowed the women to proceed with routine



activities. As Kris stated, “You can just do that and move on with your life.” Lana described the effect of self-harm as almost instantaneous:

The second I start doing it everything just comes to a complete stop. It’s really almost euphoria... Generally as soon as I make the first cut and as soon as it starts bleeding or my brain will register, I’ll feel so much better...

Similarly, Lynn stated, “In a weird, symbolic way something was exiting me. Whatever stress I had at that moment or the anger...when I cut myself it was like *poof* there went the anger. I felt better.”

Rather than a form of actively coping with emotional distress, many interviewees described their experience with self-injury in a manner that suggested it is primarily utilized as a means of avoiding fully processing emotions. By focusing on their bodies and on the act of self-injury itself, the women actively avoided confronting the feelings underlying their distress. For Abby and Ellen, self-injury served as a distraction from emotional pain. As Abby observed, “I’d get really stressed out and wouldn’t want to think about it anymore so I’d just concentrate on making the little cuts, because it would take my mind off of it.” Ellen reported experiencing extreme stress in response to internal and external expectations and pressures to succeed. She frequently referred to her anxieties about not measuring up and not being good enough. The intensity of this anxiety, which she often had difficulty pinpointing, was intolerable, leading her to binge or pick her skin. “I just despised that feeling of being so anxious that I don’t know what to do and there’s no way out,” she said. “It distracted me from my feelings...the physical pain of being overly full or my arms.” Bianca also expressed a preference for physical pain over emotional pain stating, “I just felt like the only way to get rid of my pain was if I jabbed something sharp in...so I could feel the pain and then it would be over with.”

She made an interesting distinction between the ways in which self-injury helps her release emotions versus how it helps her control them, illustrating the predominant function of self-mutilation as outlined in the literature as the control and expression and emotions:

Whenever I cut it's either one of two things. I'll either completely disassociate myself from it and just shut my emotions off - because whenever they come it's like they won't stop coming and I can't stop thinking so I want to turn them off – or it's because I want to get my emotions out and that way I'll cry.

Lana illustrated just how potent the distraction of self-injury can be. She vividly recalled an incident where she cut herself 70 times in one night, yet she could not recall what led up to this aside from “feeling out of control”:

I did it and I'd go to bed and try to go to sleep. And I wouldn't be able to sleep and I'd wake up and...I probably did it like seven times, you know, like doing it ten times each. It was pretty intense. I wish I could tell you what the exact reason was.

Not only does this description reflect a striking disconnection from her emotional experience, it also suggests the possibility that Lana developed a tolerance for the effects of cutting. It seems as if the behavior lost some of its power, requiring her to do it even more in order to induce a calming effect. This recollection, in addition to her description of the euphoric effect of cutting, evokes literature accounts of the potentially biological processes that may contribute to this behavior (Alderman, 1997; Grossman & Siever, 2001; Simeon & Favazza, 2001).

The women's responses also echo Schafer's (1973) observation of the adolescent tendency to concretize mental processes, unconsciously thinking they can physically remove negative feelings from their experience. This notion is evoked in Helen's discussion of a previous cutting incident. She described herself as crying hysterically and “going at her wrist” with a dull knife. The following day she recalled “clawing” at her wrists and thinking, “Why won't it come out? Come out! Come out!” For Bianca, self-

injury emerged after she quit playing sports and was in need of an alternative physical outlet. As she said, “I guess there was just so much tension inside of my body that I felt like I had to get it out physically.” She spoke to the experience of mounting physical tension prior to self-injury that is commonly described in the literature as the manifestation of intolerable emotions:

Your head’s kind of pounding or sometimes you’re light headed. It’s like a sinking feeling in your stomach as well. It’s not pleasant. It feels like there’s a great tension in my chest and my upper body mainly. Its anger, its hurt, its loneliness...you know, *Why can’t I be happy?*

Many of the women acknowledged experiencing significant depressive episodes, with self-harm seen as a symptom of their depression as well as an attempt of relieving depression. Abby described self-punitive thoughts that fueled her various self-harm behaviors: “I thought, I don’t deserve to be happy, so I’m just going to keep doing this to myself as long as possible. I don’t know why, but that’s how I would always think.” Bianca identified depression as a primary reason why she cuts herself. She expressed frustration, however, that she is unable to articulate why she is depressed:

They’re [her parents] incredibly supportive so it’s not like I can say I come from a broken home or anything like that...which probably makes the situation worse because I can’t really pinpoint my sadness....It feels like whenever people look at me they think, well her parents are great, she’s smart, she has everything in front of her...so why does she do it? And it’s difficult for me to express why I’m doing it and how I can be so sad when I guess I have a lot of things going for me.

Helen, who indicated she only cuts herself when she is severely depressed, described impending feelings of despair prior to an incident. Her ability to reach out for help in such moments is remarkably impaired, with cutting emerging as a tried and true method of helping herself:

There are plenty of people I could call and be like, “I’m not feeling so good right now. Save me from myself.” I have a roommate. If she was home I could knock on her door and be like, “Don’t leave me alone right now.” But I convince myself that they don’t want to hear about it. So I’ve got to help myself. And it’s like I

have a one track mind. I need to do this. Nothing else around me matters. I'm in the zone I guess you could say.

The participants' descriptions of their depression and self-injury reflect the manner in which these experiences are complexly interconnected. Moreover, their accounts reveal the dearth of targeted investigations of the relationship between depression and self-injury in the literature.

The degree to which the women experience pain during self-injury varied. Both Lynn and Bianca expressed a preference for physical pain over mental pain. As Bianca said, "I guess there's pain but it's nothing compared to what I'm feeling inside so it doesn't faze me." Kris minimized the extent of physical pain when she cuts, suggesting what appear to be symptoms of dissociation or depersonalization:

When you're doing it it's almost like it's numb. Like you don't feel it. I mean you do feel it but you're not really connected to that pain. You don't realize that that's your pain that it's happening to.

For Helen and Lynn, cutting became a way to interrupt the dissociative state and return to themselves. This function of self-mutilation has been outlined extensively in the literature and is conceptualized as a defensive affect regulation strategy that is often set in motion in response to overwhelming emotions (Fisher, 1973; Herpertz, 1995; Miller & Bashkin, 1974; van der Kolk et al., 1991). As Helen said:

I don't feel like I'm myself. It feels like something has taken control of me because when I do it, I don't feel it and the second I start to feel it I stop because it hurts. I just let things pile up so much and I'll start crying and then I'll just lose control, just lose, I guess, consciousness. I go into it me and then all of a sudden I get the idea in my head like I'm going to cut myself and then I'm gone. I'm not there. And then slowly I come back to reality... There's always a certain point that I won't go past, but I don't know how long it's going to be, or if it's going to be on both wrists or just one because I don't know how long I'm going to be in it before I snap out of it.

Helen's account mirrors the common dissociative sequence outlined in the literature: (1) a frustrating external or emotional event, (2) dysphoria, tension, and overwhelming

emotions that cannot be verbalized, (3) distortion in body perception, (4) the urge to self-mutilate, (5) self-mutilation without pain, and (6) sense of relief and the return to a normal state (Walsh & Rosen, 1988). Lynn described a similar experience:

It sounds like such a cliché, but it was like *I'm still here, I'm still a person...* at some points I felt like I was so lost in my brain, which was so messed up. I mean I would check out. I would feel like I was floating. I would feel like people could walk right through me. Even when people were talking to me ...I felt like I wasn't there. So I think that provided...it's physical, there's blood...it's not just me lost in this little world.

For Lynn the sight of blood appeared to interrupt an apparent dissociative process and offered proof of her existence by reinforcing her physical and psychological boundaries.

Contrary to literature accounts of the role of contagion in triggering self-injury among adolescents, the women's experiences with self-harm emerged as predominantly internally motivated, albeit with strong interpersonal undercurrents. Even among the women who had known of others their age who engaged in self-injury, the participants emphasized that their behavior was of their own choosing, rather than an attempt to imitate someone else. This was illustrated in Abby's statement that knowledge of her friend's self-harm behavior gave her the idea that purging and carving could help her feel better. Self-injury in response to group dynamics, competition, and overt social reinforcement was not evident in their descriptions. It is possible that these influences may not be as salient in a non-clinical population and that college age youths may be less vulnerable to the types of dynamics that have been found to be prevalent in numerous inpatient settings (Rosen et al., 1990; Ross & McKay, 1979; Walsh & Rosen, 1988). Additionally, the role of self-mutilation in modulating sexual and aggressive impulses, as emphasized in early psychoanalytic reports, was not transparent. While this does not necessarily mean these ideas are untenable, the women in this sample did not appear to

allude to even implicit links to these experiences. Participants might have felt these topics too taboo to discuss, however, particularly in just one, brief interview.

### **Feelings About Self-Mutilation**

In general, the women expressed mixed feelings about self-injury. Their descriptions reflected dissonance around this behavior and what it means to engage in it. They spoke to the manner in which self-mutilation brought relief to their suffering and offered them a sense of satisfaction and empowerment. At the same time, they alluded to internalized feelings of guilt and shame about the behavior. Attempts to justify the behavior as sanctioned by pop culture and as a behavior that is practiced by numerous other women also emerged. All in all, the women seem confused about how to feel about self-injury both personally and within the broader, socio-cultural context.

Feelings of guilt and concern about disappointing or hurting others through self-injury were expressed by the women. They also expressed concern about hiding evidence of their injuries and the consequences of others discovering them (e.g., having to go back to therapy, losing a job). They consistently described themselves and self-injury as “bad” and “wrong,” suggesting underlying feelings of shame related to the behavior (Alderman, 1997). Bianca said her feelings about cutting herself days after an incident vary depending on how the behavior was used to deal with emotions. For instance, if she cuts herself and is able to cry and release emotions she is likely to feel better and, accordingly, can feel relatively at ease with her actions. However, feelings of guilt tend to surface when she “disassociates” herself from her feelings and shuts her emotions off while cutting. Specifically, she expressed great concern and guilt about hurting her parents each time she cuts herself. She indicated this concern persists, even

though her parents are not aware that she has continued to cut herself while in college. Her statement reflects a potential lack of differentiation between self and internalized objects.

At the same time, participants stressed the normality of persons who engage in this behavior and alluded to the sense of personal satisfaction their self-injury induced, reflecting the manner in which the behavior is simultaneously ego dystonic and personally empowering. Lynn, for instance, described her initiation into self-injury as an act of courage. After contemplating cutting herself for awhile she expressed feeling relieved and almost happy at finally having done it, as if the act itself offered her a needed sense of boldness or invigoration. Her statement reflects the finding from the current study suggesting that self-mutilators may experience thrill from doing something dangerous and lack sufficient investment in protecting the body. Similarly, Abby experienced an immediate sense of satisfaction after cutting because it signified that she had done something about her pain. Her description evokes the common adolescent defense of turning passive to active.

### **Scars**

While literature accounts often describe scarring as significant and symbolic for self-mutilators, the women tended to be cautious about leaving scars and felt negatively toward them. Most of the women agreed that they do not want to leave scars on their bodies. Some spoke of the care they took not to leave scars, such as carefully tending to their wounds, while others expressed regret or embarrassment about their scars. Lana, who focuses much of her cutting on her upper thighs, indicated the scars she has sustained have been the biggest downside to her self-injury, indicating they inhibit her

from wearing skirts and swimsuits. After several years of self-injury, she said the prospect of scarring herself has helped to curb her cutting and caused her to resort to less harmful behaviors such as pinching herself. Her concerns appear to reflect self-consciousness, particularly related to the body, which can arise from self-injury and potentially cause or contribute to negative body image.

Although Bianca is opposed to leaving permanent scars, she indicated she does not mind scars that will eventually fade. She ascribed personal meaning and utility to her scars:

It's kind of a way to remind yourself that *Yeah, I was hurting...what I was feeling was real* and maybe even in some way to just let people know that you're hurting. I mean you don't want strangers to ask about it, but you kind of want your good friends to show some form of concern. I've been so emotionally closed it's just sometimes nice to have them ask what's wrong...

Bianca also spoke of the power of seeing others with extensive scarring from self-injury. She recalled another adolescent she met while staying at a rehabilitation center that had obvious scars all over her legs and stated, "It was terrible what she must have been feeling." Abby said she was always concerned with scarring and as a result exercised considerable control over her cutting and carving. "I would always do it just to the surface so it never scarred. I would always put Neosporin on it...I would always do it just so..." Kris described the care she took in tending to her wounds as an important part of her self-injury, which tends to have a ritualized aspect to it. She denied being proud of her scars, but also said she does not regret them, indicating they serve as a reminder of where she has been and what she has been through.

### **Others' Reactions to Self-Mutilation**

Each woman identified at least one person over the years who has been privy to her self-injury. For some women their self-injury escaped the attention of their parents.



Others, however, described how their parents discovered their behavior, while some reached out directly to their parents. Others people's reactions to their self-harm varied, with some women reporting fairly supportive responses while others endured quite negative reactions. To a certain extent, others' reactions seemed to determine if the women would continue to be open about their self-harm and potentially even if they would seek help for this behavior.

Kris described her parents' response to her self-injury as largely unhelpful and indicated the manner in which they handled the issue bred mistrust between them. Her parents learned of her self-injury when she was in the ninth grade after her father read her journal entries about cutting. Her mother then began conducting body scans to check for fresh wounds. She said her mother discontinued this practice when it appeared Kris was doing better, but then resumed when she discovered Kris's self-injury persisted. Her parents also confiscated all sharp objects from Kris's room and required her to use her mother's razor to shave. She was upset about the invasion of her privacy, as well as her parents' effort to control the behavior, and seemed to continue harming herself secretly as a means of asserting her autonomy:

Probably the least helpful thing was my parents trying to get involved, just because they had no idea what to do...my mom will just cry and my dad wouldn't say anything...so I had to be in a house alone with my mom always upset and my dad not really talking except to try to have awkward paternal talks and that didn't really work. If anything it just made it worse and it made me try to find ways around them finding out. It was also just really demeaning. I feel a lot of the mistrust I have for my parents stems from that incident.

Her account exemplifies the manner in which self-mutilation elicits powerful responses in others. Unfortunately in Kris's case, her parents' fear and discomfort led to attempts to extinguish her behavior, rather than attempts to truly understand her experience.

Lynn felt her mother was condescending in response to her distress and failed to deliver when she needed her most. She recalled reaching out to her mother when she was having strong urges to cut herself, but indicated her mother responded by telling her she was afraid of her. Furthermore, when Lynn was admitted to the hospital she indicated her mother complained about having to pay for it. Lynn said she needed her mother to be soft and “baby” her, rather than being “cruel” about everything. These, among other empathic failures in response to her depression and self-injury, seemed to lead Lynn to question the manner in which her mother parented her when she was younger. Her account reflects the finding in this study that self-mutilators are likely to perceive maternal care as indifferent and neglectful. For example, she described her mother as selfish, recalling how her mother would leave her at home at night when she went on dates. “She should have taken care of me first,” Lynn said. She was able to articulate the response she truly wanted from her mother, but does not believe she will ever receive it:

[I wanted] my mother to admit that there was something seriously wrong that she couldn’t control or make right. Through all the therapy I finally realize what I want from her is to admit that she didn’t do everything right. I just want her to apologize to me. But my mother will never do that. I’m not going to get that from her.”

To situate her experience within a theoretical perspective, Lynn’s account seems to reflect difficulty achieving emotional object constancy, as she has a hard time holding good and bad qualities of her mother at once and is beset by feelings of abandonment regarding this relationship. She described her mother’s failure in attunement and empathic unavailability in response to her pain, characterizing her mother as lacking in warmth and affection. Her description reflects her difficulty detaching from the internalized object and mourning this loss (Polmear, 2004).

Abby indicated her parents had a vague awareness of some of her destructive behaviors, such as purging and drug use, but never intervened. She does not, however, think they had any idea about her self-injury. "I'm sure they would just be shocked if they knew," she said. "I've never been good about talking to my parents about stuff." Abby described an incident where she hit herself by banging her body around in the back of her car. She sustained many bruises and a bloody lip. When her mother asked about the bruises, Abby told her she had been in a fight with another girl. "I wanted to hit something, but I would never go hit someone else. I would always just do it to myself." Abby also described an incident that occurred her sophomore year of college when she carved on her stomach after getting into a fight with her boyfriend. She then showed her boyfriend what she had done only to have him call her "crazy." Abby recalled:

I think that's the reaction I wanted, honestly, was for him to say that because I always knew I had problems, but sometimes it was hard to talk about them or tell people. I kind of just wanted to show him, *Look this is how I am*. I guess I'd been going to the psychiatrist and psychologist but for some reason having them talk to me wasn't the same as telling someone I was close to in my everyday life.

However, her boyfriend's response appeared to inhibit her from being more open about her self-harm behavior, as she never told anyone else. Abby has a different boyfriend now and said she "would never even dream about telling him," reasoning that he would not understand and would probably break up with her. Her concern underscores separation anxiety that may potentially influence her manner of interacting with others and the types of relationships she sustains.

Helen stated she has never directly told anyone about her cutting, although a small number of people found out after seeing evidence of an injury. Her choice to keep her self-injury as secret as possible appears to reflect an effort to protect others from her pain as well as her conviction that no one will be able to relate to her experience unless they've been through exactly the same thing themselves:

There's no one that's going to understand this...so why go and be like *I feel this bad, please understand*...you know. It's just easier this way because I'm the only one that's in the know. I have this overwhelming feeling of burdening people if I tell them anything and I just don't want to do that at all so I keep it to myself...if anybody were to know....I just wouldn't want them to worry.

In a seemingly contradictory statement, she expressed disappointment in the reactions of the few people who have known about her self-injury. She acknowledged wanting others to express some concern when they learned about her cutting as an indication that they cared for her. Keeping her self-injury to herself seems to offer a needed sense of control, yet is in apparent conflict with her hidden wish that others would reach out to her in some way.

Bianca too did not feel anyone could truly understand her unless they had cut themselves or been through depression. Like Helen, she expressed concern about burdening others with her emotions and discussed her strategy of dealing with emotions to defend against this possibility. She also alluded to possibly permeable boundaries in relation to her mother that appear to contribute to her difficulties with emotional processing:

My mom has always cared so deeply about me that it feels like she gets more hurt than I do whenever I get hurt. So it's like I have to turn off my emotions in front of her so I won't have to take care of her. It's just the way I've learned to deal with things by keeping how I feel to myself and not letting anyone else know, because I don't want to burden them. So I don't burden anyone with my emotions, I'll just kind of lock myself in my room.

For Lana the burden of others' knowing about her behavior seemed to fall on her. She discussed the awkwardness of telling her various boyfriends about her self-harm. She indicated her current boyfriend does not like the fact that she cuts and described the ways in which this produces conflict for her.

The biggest problem is like with my boyfriend, the fact that if I do it he's going to somehow feel responsible. Like maybe he could have stopped me if he'd been there or maybe he got me upset or whatever. That's a really hard thing to deal with.

Lynn was able to articulate the response she wanted from others all along.

One of the reasons I fell in love with my boyfriend is when I first started telling him about it he was like... "If you need to talk, I'll listen." That's all I needed out of people, my mother included. All she ever tried to do was give me her opinion and I didn't need that. And so the most wonderful people are the ones who are like, "Wow, it sounds like you went through a really tough time...I'll listen if you need to talk."

### **Self-Mutilation and the College Experience**

The women discussed specific stressors inherent in the transition to college that they found particularly difficult to deal with. Bianca expressed disappointment in her college experience and indicated pressures to drink have contributed to her self-injury. As she said, "The pressure of drinking, which is obviously a huge depressant for me, has been difficult to avoid..." She also discussed the impersonal nature of college and her difficulty getting to know people. She alluded to her erroneous expectation that college would somehow alleviate her problems.

I worked my butt off in high school and now that I'm here in college...is this what I worked so hard for in high school? I still don't feel happy...I've been working so hard to get to college, which is supposed to be this great, fun place. And then you get there and it's not exactly what you expect. There are still a lot of the same problems that you faced in high school.

The notion of being alone surfaced as a significant stressor specific to college life, with self-injury emerging as an antidote and a reaction to loneliness. Not only did the women express feeling homesick, they described discomfort in being alone. Helen, for example, acknowledged feeling lonely and said she was "left alone a lot" before she made friends. Regarding her first two years of college, Abby commented on the difficulty making the transition to such a large environment without the presence of her family to help absorb the shock these changes brought about. She spoke of the impersonal nature of her classes and the new possibility of being able to go days without anyone noticing her. She also expressed particular discomfort being alone:

It was hard being here. I remember always being depressed in my dorm...I remember having difficulty being alone, especially at night. If I had to eat dinner by myself I'd be really upset. I don't know why, but I didn't like to be alone. I'd want to be with someone, but she [her roommate] wouldn't be there. So then I'd turn to the guy I was dating and if he wasn't able to be there that's when I would get all upset.

While Alderman (1997) acknowledged that self-mutilation can lead to isolation and alienation, the women's accounts reflect the manner in which experiences of "aleness" can also contribute to self-injury, suggesting a cyclical relationship between these experiences. The women's expressed difficulty in being alone reflects underlying separation anxiety, as well as the developmental task of learning to be alone with oneself. This latter element does not appear to be well explicated or explored in the literature. Bianca's description traces her use of self-injury as an antidote to loneliness. Although she did not describe it quite so directly, she illustrated an incident of self-injury that served to alleviate feelings of loneliness and in some way allowed for an intimate experience of being with herself in the absence of connecting with others. She described a familiar pattern of going to parties with a friend, and ultimately finding herself alone:

I'm not used to friends who just kind of leave me alone by myself at parties and I'm not the kind of person to just dance with random people and call it a good time. Usually if I go out with her she'll get a little bit drunk and pretty much leave me. So I'll just be by myself and lonely and usually I'll just leave and go home and cut myself...Usually I will have drank a little bit too, but I go back to my dorm room...and it's usually in the dark...and it's usually one of those little Bic razor blades that I'll cut myself with.

On account of their cutting and other mental health issues, both Lana and Lynn withdrew from university for a semester and returned to live at home. "At the time I was really crazy," Lana said, "I was constantly upset. Every time something little would happen I thought it was the end of the world." Lana described a general feeling of lack of control that accompanied her early college years. She did not, however, cite the transition to college as a specific stressor, but rather pointed to a culmination of life

events that explained her problems. “I had a lot of mental stuff going on,” she said, “....stuff I hadn’t dealt with in high school.”

### **Co-Occurring Self-Harm Behaviors**

Other destructive behaviors tended to co-occur with self-injury, including drug and alcohol abuse and eating disordered behavior. Lana, for instance, went through a significant period in college where she was abusing cocaine and speed. She acknowledged that she used cutting and drugs for similar effects, but stated she was always sober when she cut herself. Lynn described a period of heavy alcohol use and promiscuity that coincided with her depression and eventual self-injury. Although bingeing was Ellen’s preferred method of dealing with uncomfortable feelings as well as rebelling against her parents, she indicated she would “attack” and “mutilate” her arms when she was unable to binge. Abby touched on the notion that certain types of self-harm behaviors may be inter-changeable. In discussing the relationship between purging and cutting, Abby admitted she was looking for the same thing out of both behaviors, specifically a release of pain. She stressed that her bulimic behavior was more of a coping strategy for her rather than a reflection of “body issues.” For her purging was more effective, but she indicated this was probably influenced by her observation that it was also more acceptable:

I knew that cutting was weirder and most people would think I was more weird and serious and...more of a crazy person... The cutting is more taboo. People don’t want to talk about it. It makes people very uncomfortable to even see or think about it.

Abby indicated she stopped purging after receiving a doctor’s warning and then went through a period of significant drug use as a sophomore in college. “It kind of moved from one thing to another, I guess,” she said, acknowledging that both behaviors were employed as a means of coping, rather than recreation. She acknowledged there were times in college when she cut and hit herself while under the influence of drugs.

### **Professional Response**

All participants reported a history of some type of mental health treatment, with mixed results. The findings of these interviews suggest the importance of professionals taking self-injury seriously and acknowledging the depths of the self-injurer's pain. The women expressed a preference for practitioners who were direct, proactive, and genuine. Negative experiences with therapy appeared to stem from perceptions of therapists as judgmental, unable to relate, and lacking in knowledge about self-injury. Lynn expressed particular frustration when she encountered a practitioner whom she felt did not understand the relationship between self-injury, depression, and suicide. Although Lana admitted that therapy was helpful in some respects she stated, "I always felt like she never really grasped the depth of my distress. I always felt like she was kind of counseling me on the surface." Abby downplayed the benefits of individual therapy. "A lot of times I've lied to myself," she said, "It's hard when I can't even be honest with myself to be honest with her. I would just tell her what she wanted to hear." Bianca indicated one of her early therapists "wasn't forward enough" and said she lost motivation to keep up with her appointments. In contrast, she saw another therapist who she said held her accountable (e.g., calling her in between appointments and making sure she scheduled and attended her sessions) and who helped her to better deal with her emotions.

Much like Bianca, Kris indicated her first therapist "didn't seem proactive enough." "She was always praising me and it seemed sort of fake," she said. She reported a much more positive experience with her second therapist, whom she indicated specialized in the treatment of teenage girls. Kris indicated this therapist knew about her bad habits but did not judge her. "She seemed to genuinely think I was a good person," Kris commented. "She had teenagers of her own so she could bring in that perspective



without being like the judgmental or controlling parent, but to understand what teenagers are going through.” Kris described a powerful lesson she took away from these therapy sessions.

She [the therapist] said one of the most helpful things that anyone has ever said to me. She said, “I’m someone that believes that everyone should have the full range of emotions and that you shouldn’t be sad all the time or happy all the time, but you should appreciate whatever emotion comes up. If you really want to experience the full range of emotions then when you’re sad or when you’re anxious, instead of engaging in some ritual – especially self-injury – why not just sit there and try to deal with it.” I had never thought of it that way. I thought I was experiencing those emotions, but then if you don’t just sit there and deal with them then you’re not...you’re trying to get rid of them somehow.

Helen reported benefiting from both individual and group therapy, but stressed she does not discuss self-injury with her therapist. She cited various reasons for remaining silent about the issue, including fear of evoking an alarmist response.

I think it’s this thing I have about not letting people in. No matter how much I let someone in, there’s always something I hold back, so not one single person knows everything about me. Right now I’m telling her [the counselor] all this stuff, so I feel like I need to keep some things for me. I guess another part of me is worried she’ll think I’m crazy and throw me into a hospital or something.

Bianca described her experience spending a week in an inpatient mental health rehabilitation center as beneficial and indicated it helped to curb her cutting for about one year. She indicated it was helpful to know “you’re not the only one going through a hard time.” Lynn also spent one week at an inpatient hospital during the height of her depression. Interestingly, at the time she had only contemplated cutting herself and did not actually go through with it until after she was released from the hospital. She expressed uncertainty as to whether her hospitalization was truly helpful

It felt nice while I was there...but I had to go back into the real world where things weren’t fixed before and they still weren’t fixed then. At the time I don’t think I was capable of making sense of anything...I was only there for a week. That can’t help much. It’s taken almost two years of therapy to get me where I am today. Now a week doesn’t seem like it would be enough time to do anything at all.

### **Correcting Myths and Misunderstandings About Self-Harm**

All participants echoed the common notion that self-mutilation is a misunderstood phenomenon. The majority of participants expressed strong reactions toward individuals who self-harm “for attention.” They spoke of the need to distinguish between, for lack of a better term, “true” versus “false” self-injurers. Their concerns resonate with Crouch and Wright’s (2004) description of adolescent inpatients who competed to be genuine self-harmers rather than attention seekers. Despite this one previous account, the literature is relatively void of attempts to understand this distinction and how it is experienced by self-mutilators themselves. Many of the women expressed anger or annoyance toward people who show off their injuries or harm themselves in obvious ways. Lana emphasized the need to recognize that there are different groups of self-injurers and expressed concern that “everyone is going to get lumped together.” “The mentality to be doing it and letting people see it must be so drastically different than the mentality of a person doing it and not letting anyone see it,” she said. Kris expressed a similar idea, indicating that people who hide their self-inflicted injuries probably experience more guilt about their behavior. Although she does not believe her self-injury was for attention, Lynn offered a more sympathetic approach to people who harm themselves for this reason:

If this person is doing it for attention they obviously need it. Someone who is going to take it to that extreme has a lot of problems and they just need someone to care. Don’t be mean about it. They need help.

Even though all the women agreed that they tried to hide evidence of their injury and insisted that they were not seeking attention through this behavior, some ambiguities emerged as they discussed their experience. Helen asserted her desire to distinguish herself from an attention seeking self-injurer, yet she also admitted that interactions with the “false” self-injurers make her question her reasons for cutting herself. Both Lynn and

Bianca recognized that their scars and wounds were a way of letting others know that something was wrong as well as a way to indirectly ask for help. Abby too expressed some ambivalence letting others know about what she was doing:

Probably in a way I think I was reaching out for help, but I never strongly tried to pursue help. I think I wished more of my friends would understand but I never told them because I didn't want people to talk.

Forcing a dichotomy between people who self-injure for attention and those who do not appears problematic, as it may impede self-injurers from seeking help. For instance, Helen stated, "I can never tell anybody because I know that I don't do this for attention." This conflict was articulated by the majority of women and reflects an area of particular concern for clinicians.

The women also debunked stereotypes of self-injurers as "dark, depressed people" who are never happy, hate the sunlight, are antisocial, "goth", and poor academic achievers. Instead they insisted that many self-injurers tend more toward the average college student and cannot be picked out of a crowd. As Kris explained, "I go through stressful times and I use self-injury as a quick fix, but I'm not constantly sitting in my room with the lights off suffering." Bianca spoke to what she perceives as the popularization of self-mutilation in pop culture and expressed concern that this trend will give teenage girls the idea that the behavior is permissible and in some ways justifiable. "That's part of the reason why I feel that it's ok to do it," she said, "...just because there are other girls out there who do it too."

Despite attempts to normalize the behavior, some stressed the idea that self-injury is different for each person. Many of the women exhibited a need to feel unique in their self-injury. Not only did they want to distinguish themselves from the "false" self-injurer, but also from their own friends who engage in the behavior. In distinguishing herself from her self-injuring friend Kris stated, "Mine is more about being so stressed

and wanting to have some sort of ritual to ground things in my life. Hers is more about wanting to get a release from the pain.” Similarly Bianca commented:

One of my friends here has done it, but I don’t think that she does it for the same reasons I do. It’s just a very different type of cutting from mine. She comes from a household where her parents aren’t as supportive and they’re divorced, so it’s a completely different set of issues that I can’t really understand.

Some women stressed additional misconceptions about self-injury. These included the importance of understanding the relationship between self-mutilation and depression.

One participant criticized the tendency to oversimplify the behavior by attributing it to a single reason, and emphasized the need to recognize the multitude of factors that can simultaneously contribute to this behavior. Another participant expressed frustration that so much of what is available to read about self-mutilation focuses on those who have been sexually abused and stated she does not feel this material applies to her.

### **Self-Mutilation and Suicide**

The women’s descriptions highlighted the ongoing confusion about the distinction between self-injury and suicide. All participants emphasized the need to differentiate self-injury from suicide. However, as participants discussed this issue some ambiguities emerged, underscoring why there is so much confusion about the relationship between these two behaviors. Helen, for instance, indicated she was trying to kill herself the first few times she cut herself and only later realized she was not engaging in a truly suicidal gesture:

There were times in the past where I’d be scared that doing this would actually lead to death, but then I just realized it wasn’t something I wanted and that doing this wasn’t because I wanted to die. It was because of something else.

Others made only a vague distinction. Lynn for instance stated “I didn’t want to die, but let’s just say I didn’t care either way.” While she conceded to bouts of passive suicidal ideation in the past, she indicated she never cut herself with the intention of killing herself and alluded to the possibility that cutting may have saved her from a worse fate.

Lana's comments echo Menninger's (1938) assertion that self-mutilation is an attenuated form of suicide. Some of the women, however, were more firm in their opposition to suicide. Bianca expressed annoyance with mental health professionals who constantly assess the suicide potential of self-injurers stating, "It's kind of a way of coping with life because you don't want to end it, but sometimes you don't want to deal with everything that comes with it." Lynn recognized the need for caution and told a story she heard about someone who went too deep and ended up dying. Overall, their accounts suggest that self-injurers are not immune to suicide risk, but that clinicians need to be sensitive to the qualitative differences between these behaviors.

Two participants discussed at least one experience of "going to deep." For Bianca, it was her very first time cutting. She said the injury was approximately two inches long and three to four millimeters deep. Although she continued cutting herself despite this scare, she indicated she kept the cutting much more superficially as a result. Lana described a shocking incident where she cut her wrist in such a manner that she could see her vein. She said she barely nicked the vein and blood squirted everywhere.

That experience is what made me want to stop doing it...I guess just seeing the blood, seeing the vein and realizing how close you are to it, it scared me...You hurt yourself for all this time and then just being that close to like actually inflicting real damage, enough to where I actually hit a vein. I was like, *Oh my God, I'm actually gonna hurt myself*. It definitely shocked me.

Despite the apparent shock this experience evoked, it did not permanently deter Lana from continuing to self-injure, although she did indicate that she "buckled down" for awhile after this incident.

### **Looking Toward the Future**

Many of the women who currently self-harm expressed uncertainty as to the future course of the behavior. As Bianca said:

I guess I assume or I hope that it goes away. I guess you don't really think about quitting, you just assume it will come with the territory of the depression going away. But sometimes it seems like it will never go away.

Helen too expressed uncertainty as to the ultimate course of her self-injury.

I know for sure that I am more depressed right now than I have been in the past. Whether or not the cutting will increase I'm not sure. The only thing I really know is I have been more depressed, but it's the first time I've sought help.

Although in high school Kris gave up self-injury for a time after making a pact with her boyfriend, she realizes now that the only way to truly give up self-injury is to do it for herself and stated she objects to the idea of being a self-injuring mother or adult. "I guess I don't really consider myself an adult yet," she said, appearing uncertain as to when this transition might occur. Lana continues to cut herself from time to time, but feels she has made some progress. One thing that has helped curb the behavior as been ridding her home of her preferred tool for cutting: flat, old fashioned razor blades. Since she started seeing a therapist she said she has thrown all of her razor blades away and has not bought anymore. "If I had them around I'm sure I would have done some damage to myself in the passion of the moment," she said. In addition, she indicated stopping drugs and learning how to better deal with family issues has helped her a great deal.

Abby observed a change in herself over the past year and has not felt the urge to cut or carve herself. She has also given up drugs and no longer purges. She indicated she has adopted a healthier lifestyle and has learned better ways to deal with her anger and sadness:

I don't know what happened junior year. I just stopped and since junior year and now...I've had issues, but for some reason it's easier to deal with them. I guess I'm growing up. I guess I'm more calm now or a little bit more level headed... I feel more appreciative of my body and I don't want to hurt myself.

For Lynn self-injury now symbolizes a period of painful depression which she seeks to avoid. This association has served as a deterrent whenever she has the urge to cut herself.

The reason I don't...what keeps me from doing it is the fear of falling back to where I was two years ago. The fear of being that horribly depressed. So anytime I get the feeling that I'm getting depressed I get really scared because that was an awful feeling. I don't want to ever go through that again.

Although she acknowledges there is more work to do, Lynn credits her experience with her therapist, whom she described as her "lifeline," in helping get to where she is today.

A positive relationship with her boyfriend also appears to be helping.

I think a few months ago I was really upset and I had a thought about doing it, but then I was like You know I don't want to. I have a new boyfriend. How would that make him feel? I was like, I don't want to make him feel like he's no good so I didn't do it. I'm good at talking myself through bad feelings now.

### **Summary**

The interviews provide important, and much needed, descriptive information about the experience of self-mutilation among female college students. The women's basic descriptions of their self-injury (e.g., the types of self-injury engaged in, location on the body, age of onset, self-injury tools, episodic nature of the behavior, co-occurrence of other impulsive behaviors) closely mirrors accounts of the impulsive subtype of self-mutilation found in the literature. The interviews highlight the potential overlap between the compulsive and impulsive subtypes of this behavior and reveal a lack of information in the literature exploring this relationship, as well as the inability of current measures of self-harm to discriminate between these categories.

Experiences of loss, loneliness, interpersonal conflict, overwhelming emotions, and feeling out of control were cited as common triggers to self-injury, reflecting underlying concerns of separation anxiety and impaired affect regulation. The expression and control of emotions appeared to be the most common function of the behavior, with many of the women doubting their ability to cope with emotional stress and depicting themselves as more sensitive to negative emotions than others. The potency of self-injury was conveyed through the women's description of the nearly instantaneous,

soothing effect of the behavior. Experiences of dissociation and depression were also discussed. The manner in which self-mutilation serves as an antidote to loneliness while simultaneously leading to feelings of isolation was highlighted, reflecting the manner in which self-mutilation may emerge as a way to negotiate the developmental balance between intimacy and isolation.

The women's accounts revealed discrepant messages and feelings about self-harm behavior. On one hand, they expressed a certain discomfort with the idea of self-injury, acknowledging the stigma around this behavior, and expressing guilt and shame related to their self-harm. At the same time, they described the powerful effect of this behavior in offering a sense of relief and calm. They described their acts of self-harm as empowering and satisfying, alluding to the thrill of doing something dangerous. For many, the behavior represents an active attempt to help oneself by doing something about one's pain. The women debunked stereotypical images of the self-mutilator and emphasized the fact that normal, productive people engage in this behavior. However, they also tended to emphasize that self-mutilation is a highly individualistic enterprise in an apparent attempt to set themselves apart from others they know who also self-harm. They alluded to the ways popular culture both silences and glorifies self-injury.

Further conflict emerged with regards to telling others about their self-harm. While all women reported trying to hide the fact of their self-injury, some alluded to the hidden wish that others would acknowledge their distress and care enough to reach out to them in a supportive and accepting manner. The women appeared quite inhibited in their ability to reach out to others for fear that others would not understand and for fear that they would be labeled as attention seekers. Some spoke to a lack of parental attunement and understanding in response to their distress, reflecting negative perceptions of parental care. Others expressed the desire to protect their loved ones from their pain. The women



expressed their desire for professionals to take their distress seriously, to hold them accountable for their actions, to be knowledgeable about self-injury, and to be non-judgmental and genuine.

## CHAPTER VI

### DISCUSSION

This dissertation sought to investigate the experience of self-mutilation among college students, with particular emphasis on the relationship of this behavior to a number of constructs derived from object relations theory. To explore this topic, a mixed methods approach was utilized. Quantitative information was gathered using self-report questionnaires assessing a number of variables that have primarily only thus far been theoretically linked to self-mutilation. The variables of interest in the quantitative analysis included: parental bonding, separation-individuation, emotional body investment, emotion regulation, and perceived stress. Additionally, a series of qualitative interviews based in phenomenological methods were conducted to provide an in-depth, inside account of what the experience of self-mutilation is like. Self-mutilation was assessed using the Deliberate Self-Harm Inventory (DSHI; Gratz, 2001), with participants failing to endorse any item on this instrument designated as non-mutilators and those endorsing experience with one or more items on this measure designated as self-mutilators.

#### Parental Bonding

Participants' representations of their parents during the first sixteen years of life were assessed using the Parental Bonding Instrument (Parker et al., 1979). Perceptions of mother and father care and overprotection were assessed separately. It was hypothesized that self-mutilators would be more likely to perceive maternal and paternal care during childhood as significantly less warm and affectionate (or alternatively, more indifferent and neglectful) compared to non-mutilators. It was also hypothesized that self-mutilators

would be more likely to perceive their mothers and fathers as significantly more controlling and intrusive (or alternatively, less encouraging of autonomy) compared to non-mutilators. These hypotheses were rooted in literature accounts associating quality of caregiving with self-mutilation (Krueger, 2002; Simpson & Porter, 1981; van der Kolk, 1991; Walsh & Rosen, 1988). The results yielded partial support for these hypotheses. The combination of significant factors for the self-mutilating group across the parental bonding variables reflects the dimension of *low care – low overprotection*, which was posited by the PBI authors to represent absent or weak parental bonding (Parker et al., 1979).

The self-mutilators in this sample were significantly more likely to perceive their mothers as less affectionate compared to non-mutilators. This finding suggests self-mutilators' representations of their mothers are more likely to be characterized by "emotional coldness, indifference, and neglect" (Parker et al., 1979, p. 8), reflecting a stark object world devoid of comfort or support. Similar empirical results were obtained by Gratz et al. (2002), who found a positive association between maternal emotional neglect (as measured by the PBI) and frequency of self-harm in college women (as measured by the DSHI). In the current study, perceptions of father care were not predictive of group membership.

The hypothesis that self-mutilators would be more likely to endorse maternal and paternal intrusion and overprotection was also not supported. In fact, an opposite finding emerged with respect to paternal representations. Self-mutilators were more likely to experience their fathers as encouraging of autonomy than non-mutilators. This unexpected finding initially seems to suggest that a more overprotective, controlling, or

intrusive stance by fathers might serve as a protective factor against self-harm. The two poles of the PBI Overprotection scale were defined by the instrument's authors to represent "control, overprotection, intrusion, excessive contact, infantilization, and prevention of independent behavior" versus "allowance of independence and autonomy" (Parker et al., 1979, p. 8). However, in reviewing the PBI Overprotection items, it appears that endorsement of paternal encouragement of autonomy might more accurately reflect a lack of paternal involvement in the lives of these self-mutilating women. For instance, items on the PBI Overprotection scale ask respondents to rate the degree to which their fathers (1) let them do things they liked doing, (2) let them decide things for themselves, (3) gave them as much freedom as they wanted, (4) let them dress any way they pleased, and (5) tried to control everything they did. While these items certainly may reflect encouragement of autonomy, for some individuals they might also be indicative of uninvolved, overly permissive, or absent father figures. If this were the case, endorsements of paternal overprotection, as measured by this scale, could also be interpreted as the presence and active involvement of fathers in their daughters' lives, and would thus emerge as a potential protective factor against self-harm.

### *Separation-Individuation*

The Separation Individuation Test of Adolescence (Levine et al., 1986) was used to assess the presence of early separation-individuation conflicts as they express themselves during adolescence. The following three SITA scales were assessed: Separation Anxiety, Engulfment Anxiety, and Dependency Denial. Separation anxiety refers to feelings associated with actual, anticipated, or perceived separation (emotional and physical) from important others. Engulfment anxiety involves viewing relationships

as a threat to one's sense of self or autonomy and is associated with concern about being overly controlled by others. Dependency denial reflects the avoidance of dependency needs. The empirical investigation of these separation-individuation dimensions among self-mutilators was largely exploratory, as these constructs have predominantly been applied to self-mutilation from a theoretical perspective only. Drawing from general observations and conjecture in the literature that separation-individuation conflicts are associated with self-mutilation, it was hypothesized that self-mutilators would be more likely to exhibit separation-individuation conflicts across all three SITA categories compared to non-mutilators (Doctors, 1981; Farber, 2000; Guralnik & Simeon, 2001; Krueger, 2002; Simpson & Porter, 1981).

The analyses indicated that self-mutilators were more likely to experience separation anxiety compared to non-mutilators. From a theoretical perspective, this finding may reflect early developmental interferences that are being recapitulated in adolescence (Blos, 1967), as well as current strategies of regulating closeness and distance in relationships (Holmbeck & Leake, 1999). Indeed the qualitative interviews revealed the intimate relationship between experiences of loss and relational ruptures to self-injury and reflected the manner in which separation anxiety is generalized to relationships beyond mother and father figures. Separation anxiety is believed to first occur during the rapprochement phase of early development (Mahler et al., 1975). At this stage, the child fears object loss, evincing significant distress when separated from primary attachment figures.

Separation anxiety concerns in adolescence are likely to be particularly salient for individuals who are not fully differentiated from internal objects (Blos, 1962). Much like

the young child in the throes of the rapprochement crisis, such individuals are prone to experience considerable anxiety at the prospect of separation, rejection, or abandonment and may experience separation as a threat to their bodily integrity and sense of self. Self-mutilation is seen as a means of controlling the overwhelming feelings associated with separation, thereby delineating self-representation (Farber, 2000). This was poignantly illustrated in Kris's interview in which she described cutting herself after a painful break up with her boyfriend and stated, "I wanted to be reminded that I didn't need him." While these observations and theoretical postulations have been made numerous times in the object relations literature, the current study offers some support for these ideas and indicates that such disturbances in object relations may be salient even among individuals in a non-clinical setting.

No substantive differences were noted between groups with respect to engulfment anxiety and dependency denial. Given the fact that self-mutilators were not reliably discriminated from non-mutilators as a result of representations of parents as overly controlling on the PBI, it is not surprising that engulfment anxiety was not a significant predictor in this sample. The negligible predictive power of dependency denial also seems to suggest that the self-mutilators in this sample exhibit some awareness of their attachment needs. It is this very awareness that may make them so sensitive to experiences of abandonment and loss, as reflected by the strong predictive power of separation anxiety in differentiating self-mutilators from non-mutilators.

#### *Emotional Body Investment*

Orbach and Mikulincer's (1998) Body Investment Scale was used to measure the participants' attitudes, feelings, and emotional investment in their physical selves. This

sense of investment is believed to derive from experiences within the primary caregiving relationship during infancy and early childhood and is posed as a central contributor in regulating self-directed aggression and self-preservation. It was hypothesized that self-mutilators would be more likely to exhibit negative feelings about their bodies (i.e., negative body image), less investment in body care, less comfort in touch, and less concern with body protection compared to non-mutilators. These hypotheses were based in observations and some empirical findings suggesting that self-mutilators exhibit a conflicted relationship to their bodies (Cross, 1993; Darche, 1990; Farber, 2000; Krueger, 2002; Polmear, 2004; Walsh & Rosen, 1988).

These hypotheses were partially supported, with self-mutilators significantly less likely to exhibit body care and body protection compared to non-mutilators. These findings suggest self-mutilators are less invested in caring for their physical selves and experience indifference, or even thrill, at doing something dangerous. This may reflect a failure to internalize self-care ego functions, or the basic notion, believed to be first communicated by primary caregivers, that the body-self is worthy of care and protection (Farber, 2002; Orbach, 2003). It is possible that deficient investment in body care and protection may facilitate self-injury, while more positive investment in the body may serve as a protective factor against the behavior (Orbach & Mikulincer, 1998).

The variable of Body Image did not reliably discriminate between the self-mutilators and non-mutilators in the current sample. The simultaneous societal and cultural determinants of body image, particularly among adolescent women, might weaken the discriminating power of this variable. In other words, negative body image may be the norm among this population, regardless of its origins. It is highly possible

that negative body image would emerge as a more influential predictor of self-mutilation in a different sample. Comfort in Touch also did not emerge as a significant predictor of self-mutilation. Interestingly, Orbach and Mikulincer (1998) found Comfort in Touch to be the only BIS variable that did not successfully discriminate between suicidal and non-suicidal adolescents. Further investigation of this proposed aspect of body experience and its relationship to early caregiving and self-destructive behavior is therefore in order to determine the utility of this construct.

### Emotion Regulation

The Emotion Regulation Questionnaire (ERQ; Gross & John, 2003) was administered to assess strategies used in regulating emotions. Specifically, the ERQ assesses Cognitive Reappraisal and Expressive Suppression. Cognitive reappraisal involves changing the emotional impact of an event by changing one's thoughts. This strategy is typically employed early in the process of generating an emotional response and can therefore be used to reduce the effect of negative emotions. Expressive suppression, however, involves inhibiting emotional expression and is thought to come later in the cycle of emotion generation, exerting influence over one's behavioral response to feelings as they arise. Suppression is related to negative outcomes including alienation, rumination, depression, and impairment in emotional attention and awareness (Gross & John, 2003). It was hypothesized that self-mutilators would be more likely to rely on expressive suppression and less likely to rely on cognitive reappraisal as emotion regulation strategies compared to non-mutilators. This hypothesis was based in literature accounts suggesting self-mutilators are easily overwhelmed by their emotions and are



limited in their capacity to identify and articulate their feelings (Suyemoto, 1998; Zlotnick et al., 1996).

The analyses did not support these hypotheses, with cognitive reappraisal and expressive suppression emerging as poor predictors of self-mutilation within the current sample. This finding is somewhat surprising given ample references to self-mutilation as a means of affect regulation in the literature, as well as evidence from the qualitative interviews suggesting that self-mutilators suppress their emotions and keep their feelings to themselves. One potential limitation of the ERQ, is that it assesses reappraisal and suppression of both positive and negative emotions that are described very generally (Gross & John, 2003). It may be that self-mutilators are more likely to suppress certain emotions, such as anger, sadness, or rage. If this is the case, a measure that offers greater specification of these emotional states might be more appropriate. Moreover, the control and expression of intolerable emotions for the women who participated in the interview was uniformly achieved via physical actions, rather than solely on cognitive exercises. The close association between dissociation and self-mutilation also suggests that self-mutilators might be more reliably discriminated on the basis of more extreme affect regulation strategies (Herpertz, 1995; Miller & Bashkin, 1994; Raine, 1982).

#### Perceived Stress

The Perceived Stress Scale (PSS; Cohen et al., 1983) was administered to determine the extent to which self-mutilators and non-mutilators appraise events in their lives as stressful. High levels of perceived stress relate to perceptions of life events as overwhelming, unpredictable, and uncontrollable as well as perceptions of available resources to cope with such stressors. In the current study, perceived stress was

conceptualized to be reflective of objectively stressful life events, personality features, and coping skills (Cohen et al., 1983). It was hypothesized that self-mutilators would be more likely to report subjective perceptions of stress compared to non-mutilators. This hypothesis was somewhat speculative and was derived from accounts in the literature reflecting mounting stress and tension prior to self-mutilation (Favazza, 1996), as well as the finding that some self-mutilators perceive less control over their problems than non-mutilators (Haines & Williams, 1997).

Although a trend emerged suggesting self-mutilators are more likely to perceive events in their lives as stressful, this variable did not reliably predict self-mutilation and the hypothesis was ultimately not supported. Perceived stress, as measured by the PSS (measuring perceived stress over the past month), may be considered more of a state variable compared to other variables measured in this study, and is prone to fluctuate considerably over time. Consequently, it does not necessarily reflect perceptions of stress at the time of self-mutilation, since not all of the self-mutilators injured themselves within the same month of taking this survey. Additional studies assessing differences in perceived stress between self-mutilators and non-mutilators using a repeated measures design are needed to better assess the reliability of this construct in discriminating between groups.

Furthermore, data obtained from the qualitative interviews indicated that many of the women perceived themselves as more vulnerable to emotional distress compared to others and expressed doubt in their ability to manage negative emotions and experiences. The women also cited the perception that things in their lives were “out of control” as a common trigger for self-injury. Employing more specific measures assessing coping

strategies might better reflect differences in self-mutilators' responses to stress compared to non-mutilators.

### **Clinical Implications**

These research findings suggest that developmental object relations theory is relevant in the understanding of self-mutilation in college students. The findings underscore the importance of attending to intrapsychic experiences in order to better understand how representations of self and others influence one's relationships and interactions in the world. Clinical attention and observation of issues of parental bonding, separation anxiety, and body investment are needed. Furthermore, this study suggests that even in a non-clinical setting, self-mutilators are likely to endorse experiences of abuse and emotional neglect. Consequently, these may be important issues to work through in therapy.

Information gleaned from the interviews is particularly important for clinicians working with self-mutilators. Clinicians should be sensitive to the true versus false self-mutilator dichotomy expressed by the women and understand how concerns about attention seeking might impede treatment. Clinicians should also be aware of the potential ambivalence individuals feel about letting others know about their self-injury, alongside the passive wish for someone to reach out and care for them. Information obtained from the interviews reflects the desire for others to acknowledge their distress in an accepting and non-judgmental manner and underscores the difficulty many self-mutilators have reaching out for help. The confusion evinced by the women regarding how to feel about self-injury and the mixed messages about the behavior apparent in the broader cultural milieu need to be explicitly acknowledged. Clinicians need to be aware

of emerging pop culture trends, such as influential material about self-mutilation on the internet, in order to understand the impact of such influences on their clients (Whitlock, Powers et al., 2006).

Clinicians should assess for co-occurring risky behaviors. The greater availability of drugs and alcohol to college students is of concern, particularly if students self-injure while under the influence. Under such circumstances, they may exert less control and are at increased risk for serious and possibly fatal outcomes. Those working with college students should also be sensitized to the issues of loneliness that are particularly germane to the college experience. Practitioners should include questions about self-injury in routine assessments of depressive symptoms, given the common co-occurrence of these experiences. It is important for practitioners to be aware of the ways in which depression and self-injury inform one another to more fully understand client dynamics and to explore the relationship between these experiences as the client understands it. Modalities that facilitate the integration of mind and body may also be beneficial to instill greater emotional investment in the body.

Professionals should consider what self-injurers themselves appreciate most about their therapists. The women in the interview expressed a preference for a therapist who is direct, proactive, genuine, and can relate to them without judgment. Additionally, they emphasized the need for professionals to be knowledgeable about self-injury and expressed a preference for a therapist who will hold them accountable for their behavior. The underlying themes of isolation, loneliness, and loss, as well as sensitivity to separation anxiety, also points to the potential benefits of a therapeutic approach that acknowledges the importance and healing potential of the therapeutic relationship.

Because self-mutilation is a topic that can elicit significant discomfort, even among professionals, it is important for clinicians to take inventory of their feelings and reactions to this type of material, so as not to convey discomfort to their clients (Robinson, 1998). While it is important for clinicians to remain abreast of research findings regarding self-injury, they are also encouraged to explore the personal meaning of the behavior with their clients, as acknowledgement of this meaning in and of itself may prove therapeutic.

### **Limitations**

There are several limitations to this study. Given the nature of this research, determinations of causality cannot be made. Observations were also made at a single point in time, obscuring understanding of how changes in object relations, maturation, and life experiences come to shape the course of self-mutilation. Although it was hoped that the online format would facilitate greater honesty on the part of participants, it may also have contributed to hasty and incomplete responding (i.e., missing data). Furthermore, control over the research situation was surrendered, with the researcher left in the dark regarding the participants' understanding and interpretation of survey items as well as the occurrence of unusual events within the research environment that may have influenced participants' responses.

In using self-report measures, the researcher assumes the participants' responses are honest and accurate, yet they may respond in a biased or distorted manner. Some participants may have attempted to respond according to their perceptions of the researcher's expectations, while others may have erred toward the most socially desirable responses. The response format of the measures utilized in this study were similar,

creating common method variance that may have influenced the results (e.g., nay saying, yea saying) (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Furthermore, some participants may possess limited awareness of their own internal experiences and cognitive processes, thereby reducing their ability to accurately report such experiences. The possibility of retrospective bias related to endorsements on the Parental Bonding Instrument (PBI) must be accounted for, as respondents were asked to rate perceptions of parental care and protection over the first 16 years of life. Potential discrepancies in self-mutilators' and non-mutilators' recollections of childhood experiences might have been influenced by the overemphasis, distortion, minimization, or denial of certain childhood experiences (Gratz et al., 2002).

Difficulties also arose in use of the DSHI to determine the presence of self-mutilation. In using the DSHI, one option is to rely on the reported frequency of self-harm across DSHI items as a continuous criterion variable or to artificially categorize the frequency of the behavior (e.g., low, medium, high). This method, however, implies that increased frequency corresponds to greater severity of self-harm, which may not necessarily be so. An alternative approach to this instrument, which was utilized in this study, is to assign participants dichotomous scores based on their endorsements of the DSHI items. In the case of this study, participants who answered "yes" to any of the sixteen types of self-harm assessed by the DSHI were included in the self-mutilating group regardless of the frequency of self-harm or the recency of this behavior.

In examining the DSHI endorsements in the current study, there appeared to be qualitative differences in participants' responses that are not adequately reflected using the method of assigning dichotomous scores as described above. For instance, some

participants reported several years had passed since they last harmed themselves, while others reported more recent incidents of self-injury. Similarly, the frequency of self-harm varied widely across participants. Potential differences may exist between self-mutilators with regard to the recency and frequency of the behavior that might also influence the variables of interest in this study. The small sample size and inherent difficulty recruiting self-mutilators made it impossible to retain only the “active” self-mutilators for the analysis. Consequently, it was decided to coarsely categorize participants as self-mutilators or non-mutilators, rather than make arbitrary judgments about which self-mutilators to retain. With a larger sample size and recruitment procedures specifying active self-mutilation (perhaps within the past year), the variables assessed in this study may have yielded greater discriminatory power.

Further analysis of the DSHI also led to questions about how some of the items were interpreted. Even though the DSHI author argued that the behaviorally specific questions should contribute to more accurate reporting (Gratz, 2001; Gratz, et al., 2002), various interpretations and confusion over particular items became apparent in the process of conducting the qualitative interviews. Specifically, items assessing “scratching” and “preventing wounds from healing” appeared to breed confusion and are in need of further explication. The DSHI is also limited in its ability to discriminate between different categories of self-harm. While it is unlikely that examples of major and stereotypic self-mutilation would emerge in a college population, information garnered from the qualitative interviews suggested potential overlap between impulsive and compulsive subtypes of self-mutilation for some participants. This finding

underscores the need to investigate the similarities and differences between these types of self-harm and develop a reliable means of discriminating between them.

Due to the exploratory nature of this study, there was concern about recruiting a sufficient number of self-mutilators in order to make meaningful comparisons between groups. The various sampling and recruitment measures employed to attract self-mutilators, however, may also impose limitations on the results. For instance, only self-mutilators were recruited from schools outside of the University of Texas and the number recruited was surprisingly low. The types of students sampled in this study may not reflect the typical college population, thereby limiting the generalizability of the results. There may have been a potential selection bias in recruitment, as participants were informed about the topic of the study before responding to the questionnaire in order to be able to give their informed consent. This may have attracted self-mutilators who are more comfortable disclosing their experiences while diverting those who are less comfortable self-disclosing. The recruitment flyers may have also attracted individuals who engage in types of self-harm that fall outside of Favazza's (1996) definition of self-mutilation (e.g., starvation, substance abuse), but do not engage in the types of self-harm assessed on the DSHI. Because the study did not control for these types of self-harm, these individuals would have been classified as non-mutilators, even though they may have been more similar to the self-mutilators across the assessed variables. This may account for the 44 non-mutilators who identified recruitment via alternatives to the subject pool.



## **Future Research**

This study provided support for potential predictors of self-harm in a college sample based on a particular set of theoretical ideas. While still tentative, these findings are important given the fact that literature accounts reflect few attempts to empirically assess these constructs, particularly in non-clinical settings. Replication of these findings in future studies is necessary to ascertain the generalizability of the results. Future studies should address the relationship between salient variables that emerged in this research. Because self-mutilation is multi-determined, it is necessary to conduct research that not only looks at intrapsychic influences, but also cultural and environmental determinants of this behavior. In order to better understand the etiology of self-mutilation, more complex models of the behavior need to be developed to test the manner in which various intrapsychic, interpersonal, and contextual predictors interact and to better discern risk and protective factors related to this behavior.

One specific area for such research concerns investigations of the role of sexuality in self-mutilation. In this study, self-mutilators were more likely to identify as lesbian, bisexual, or unsure of their sexual orientation compared to non-mutilators, adding to similar findings in previous studies (Fennig et al., 1995; Whitlock, Eckenrode et al., 2006). This discrepancy warrants further investigation from both a personal and socio-cultural perspective. Research concerning gender differences and possible differences related to racial/ethnic status is also in order. Longitudinal designs might also be attempted to provide information about the course of self-mutilation and the manner in which this behavior, as well as information about how intrapsychic experiences associated with this behavior, change over time.

Future research is needed to explore the speculation drawn from this study that the lack of involvement or over-permissiveness on the part of fathers, rather than fathers' encouragement of autonomy per se, are predictive of self-mutilation in women. The observed differences in the predictive power of the PBI variables based on perceptions of mother versus father also warrants a closer look. This finding underscores the need to study specific mother-daughter, father-daughter, and family dynamics during childhood and adolescence to further understand their relationship to self-mutilation. For instance, why did mother care emerge as a salient factor while father care did not? Similarly, why did perceptions of overprotection and encouragement of autonomy emerge as salient for fathers but not mothers? Future research should assess family composition and dynamics during childhood and adolescence to lend insight to these questions.

Information gleaned from the qualitative interviews reflects a serious need for increased research exploring the relationship between depression and self-mutilation. Although it has been documented that self-mutilators experience more symptoms of depression than non-mutilators, and this finding has been replicated across a number of studies (Klonsky et al., 2003; Ross & Heath, 2002), investigation into the nature of the relationship between these experiences seems to cease once significant statistical findings are presented. This is unfortunate because, as the information gathered from the interviews suggests, the relationship between self-mutilation and depression is more complex than it appears. Ongoing research, both quantitative and qualitative, is needed to further understand the complexities of this relationship.

Future research should also work to perfect available instrumentation for measuring self-mutilation. While the DSHI provides an easy and reliable means of

assessing self-mutilation using an appropriate operational definition of the behavior, the current study identified potential adjustments that might be made to this instrument. Specifically, improvements should be made to make the DSHI more sensitive to the continuum of self-mutilation and allow for greater discernment between the four identified categories of this behavior. Particularly relevant in the current sample, was the need to better distinguish between the compulsive and impulsive categories of this behavior. At the same time, information obtained from the interviews suggested possible overlap between the compulsive and impulsive types of self-mutilation, underscoring the need for future research to explore the relationship between these categories. Studies examining differences between compulsive versus impulsive self-mutilators, as well as differences and similarities in the functions of these two forms of the behavior are in order.

Self-mutilation is a complex phenomenon. In particular, the experience of self-mutilation among college students is an area of much needed future research, as the college years are an important developmental juncture in the onset and maintenance of this behavior. The current study extends support for the relationship between self-mutilation and constructs drawn from object relations theory, suggesting one's internal representations of self and others are influential in the development of this behavior. In considering first hand accounts of the experiences of self-mutilators, additional information was revealed about the personal meaning of the behavior and its clinical implications. With more informed and sensitive understanding on the part of clinicians and college administrators, intervention efforts can be targeted to address the needs of

these adolescents while also improving awareness and knowledge about this topic across college campuses.

## **Appendices**

## **Appendix A**

### Recruitment Flyer

#### **DO YOU ENGAGE IN**

#### **SELF-INJURY?**

HELP US UNDERSTAND...

Seeking women ages 18-25 as participants for  
research study on self-harm  
(including but not limited to self-cutting, carving, burning, etc...).

All responses are confidential and can be completed online. Please visit:

**<http://www.dissertationsurveyor.com/ehr/index.php>**

Username: ehr

Password: 7891

**PARTICIPANTS WILL BE ENTERED INTO A RAFFLE DRAWING FOR A  
\$100 CASH PRIZE**

**To speak with someone about self-harm, contact the following:**

**UT Counseling and Mental Health Center, (512) 471-3515**

**UT 24 Hour Telephone Counseling Hotline, (512) 471-CALL**

**[contact information for participating university counseling centers outside of UT  
were added here]**

**211 Texas**

**1-800-DONTCUT**

[The bottom of the flyer included perforated, individual slips with the web address so  
people could tear off and take with them]

## **Appendix B**

### **Measures**

## Appendix B

### Deliberate Self-Harm Inventory (Gratz, 2001)

This questionnaire asks about a number of different things that people sometimes do to hurt themselves. Please be sure to read each question carefully and respond honestly. Often, people who do these kinds of things to themselves keep it a secret, for a variety of reasons. However, honest responses to these questions will provide us with greater understanding and knowledge about these behaviors and the best way to help people. Please answer yes to a question only if you did the behavior intentionally, or on purpose, to hurt yourself. Do not respond yes if you did something accidentally (e.g., you tripped and banged your head on accident). Also, please be assured that your responses are completely confidential.

1. Have you ever intentionally (i.e., on purpose) cut your wrist, arms, or other area(s) of your body (without intending to kill yourself)?

1. Yes            2. No

If yes,

How old were you when you first did this? \_\_\_\_\_

How many times have you done this? \_\_\_\_\_

When was the last time you did this? \_\_\_\_\_

How many years have you been doing this? (If you are no longer doing this, how many years did you do this before you stopped?) \_\_\_\_\_

Has this behavior ever resulted in hospitalization or injury severe enough to require medical treatment? \_\_\_\_\_

In the questionnaire given to participants, the above format was used for each of the following items, with each index question followed by the five follow-up questions. Like Item 1, each of the following items begins with the phrase: Have you ever intentionally (i.e., on purpose)

2. Burned yourself with a cigarette?
3. Burned yourself with a lighter or a match?
4. Carved words into your skin?
5. Carved pictures, designs, or other marks into your skin?
6. Severely scratched yourself, to the extent that scarring or bleeding occurred?
7. Bit yourself, to the extent that you broke skin?
8. Rubbed sandpaper on your body?
9. Dripped acid onto your skin?
10. Used bleach, comet, or oven cleaner to scrub your skin?
11. Stuck sharp objects such as needles, pins, staples, etc. into your skin, not including tattoos, ear piercing, needles used for drug use, or body piercing?
12. Rubbed glass into your skin?
13. Broken your own bones?



14. Banged your head against something, to the extent that you caused a bruise to appear?
15. Punched yourself, to the extent that you caused a bruise to appear?
16. Prevented wounds from healing?
17. Done anything else to hurt yourself that was not asked about in this questionnaire? If yes, what did you do to hurt yourself?

## Appendix B

### Parental Bonding Instrument (Parker, Tulping, & Brown, 1979)

This questionnaire lists various attitudes and behaviors of parents. As you remember your MOTHER/FATHER (or the most and next most influential parent or parent-figure) in your first 16 years would you check the most appropriate bracket next to each question.

1	2	3	4
.....	.....	.....	
Very Unlike			Very Like

1. Spoke to me with a warm and friendly voice.
2. Did not help me as much as I needed. (R)
3. Let me do things I liked doing.
4. Seemed emotionally cold to me. (R)
5. Appeared to understand my problems and worries.
6. Was affectionate to me.
7. Liked me to make my own decisions.
8. Did not want me to grow up. (R)
9. Tried to control everything I did. (R)
10. Invaded my privacy. (R)
11. Enjoyed talking things over with me.
12. Frequently smiled at me.
13. Tended to baby me. (R)
14. Did not seem to understand what I needed or wanted. (R)
15. Let me decide things for myself.
16. Made me feel I wasn't wanted. (R)
17. Could make me feel better when I was upset.
18. Did not talk with me very much. (R)
19. Tried to make me dependent on her/him. (R)
20. Felt I could not look after myself unless she/he was around. (R)
21. Gave me as much freedom as I wanted.
22. Let me go out as often as I wanted.
23. Was overprotective of me. (R)
24. Did not praise me. (R)
25. Let me dress in any way I pleased.

[THESE QUESTIONS WERE ASKED SEPARATELY FOR MOTHER AND FATHER, YIELDING A TOTAL OF 50 ITEMS]

(R) denotes items that were reverse scored. Items on the Overprotection scale were recoded so that higher scores represented greater encouragement of autonomy and lower scores represented more parental control and intrusiveness.

## Appendix B

Separation-Individuation Test of Adolescence (Levine, Green, & Millon, 1986).

Listed below are a number of statements which best describe various feelings, attitudes, and behaviors that people have. Read each statement and then mark:

- (5) if you STRONGLY AGREE
- (4) if you GENERALLY AGREE
- (3) if you SLIGHTLY AGREE
- (2) if you GENERALLY DISAGREE
- (1) if you STRONGLY DISAGREE

Please answer all of the questions. If you have difficulty answering a particular question, choose the response which is closest to your feelings on that item, even though you may not feel strongly one way or another.

1. Sometimes my parents are so overprotective I feel smothered.
2. Being alone is a very scary idea for me.
3. Often I don't understand what people want out of a close relationship with me.
4. I can't wait for the day that I can live on my own and am free from my parents
5. I worry about death a lot.
6. Most parents are overcontrolling and don't really want their children to grow up.
7. Sometimes I think how nice it was to be a young child when someone else took care of my needs.
8. I don't see the point of most warm, affectionate relationships.
9. I do best when I'm by myself and don't have other people around to bother me.
10. I frequently worry about being rejected by my friends.
11. I don't feel that love has much of a place in my life.
12. I frequently worry about breaking up with my boyfriend/girlfriend.
13. I feel that other people interfere with my ability 'to do my thing'
14. Being close to someone else is uncomfortable.
15. I often feel rebellious toward things my parents tell me to do.
16. My life is fulfilled without having best friends.
17. I am quite worried that there might be a nuclear war in the next decade that would destroy much of this world.
18. Friendship isn't worth the effort it takes.
19. The teacher's opinion of me as a person is very important to me.
20. I feel overpowered or controlled by people around me.
21. I think it is silly when people cry at the end of an emotional movie.
22. I don't really need anyone.

- 23. When I think of the people that are most important to me I wish I could be with them more and be closer to them emotionally.
- 24. I don't really love anyone.
- 25. My parents keep close tabs on my whereabouts.
- 26. I feel my parents' rules restrict my freedom too much.
- 27. Before I go to sleep at night, I sometimes feel lonely and wish there were someone around to talk to or just to be with.
- 28. The idea of going to a large party where I would not know anyone is a scary one for me.
- 29. I don't have much of a need for close friendships with others.
- 30. I worry about being disapproved of by teachers.
- 31. My personal plans are more important than my relationships.
- 32. I am greatly looking forward to getting out from under the rule of my parents.
- 33. I would get upset if I found out my teacher was mad at me or disappointed in me.

Note: Items listed correspond to the Separation Anxiety, Engulfment Anxiety, and Dependency Denial subscales only and do not include items from additional SITA subscales.

## Appendix B

### Body Investment Scale (Orbach & Mikulincer, 1998)

The following is a list of statements about one's experience, feelings, and attitudes of his/her body. There are no right or wrong answers. I would like to know what *your* experience, feelings, and attitudes of your body are. Please read each statement carefully and evaluate how it relates to you by checking the degree to which you agree or disagree with it. If you do not agree at all check (1). If you do not agree check (2). If you are undecided check (3). If you agree check (4). If you strongly agree check (5). Try to be as honest as you can. Thank you for your time and cooperation.

1. I believe that caring for my body will improve my well-being.
2. I don't like it when people touch me. (R)
3. It makes me feel good to do something dangerous. (R)
4. I pay attention to my appearance.
5. I am frustrated with my physical appearance. (R)
6. I enjoy physical contact with other people.
7. I am not afraid to engage in dangerous activities. (R)
8. I like to pamper my body.
9. I tend to keep a distance from the person with whom I am talking. (R)
10. I am satisfied with my appearance.
11. I feel uncomfortable when people get too close to me physically. (R)
12. I enjoy taking a bath.
13. I hate my body. (R)
14. In my opinion it is very important to take care of the body.
15. When I am injured, I immediately take care of the wound.
16. I feel comfortable with my body.
17. I feel anger toward my body. (R)
18. I look in both directions before crossing the street.
19. I use body care products regularly.
20. I like to touch people who are close to me.
21. I like my appearance in spite of its imperfections.
22. Sometimes I purposely injure myself. (R)
23. Being hugged by a person close to me can comfort me.
24. I take care of myself whenever I feel a sign of illness.

(R) denotes reverse scored items. Items 12, 15, 18, and 22 were deleted after factor analysis.

## Appendix B

### Emotion Regulation Questionnaire (Gross & John, 2003)

People have different ways of experiencing and handling emotions. Using the following 7-point scale, please answer the following questions about yourself by indicating the extent of your agreement.

Strongly disagree			Neutral			Strongly agree
1	2	3	4	5	6	7

- 1) When I want to feel more positive emotion (such as joy or amusement), I change what I'm thinking about.
- 2) I keep my emotions to myself.
- 3) When I want to feel less negative emotion (such as sadness or anger), I change what I'm thinking about.
- 4) When I'm feeling positive emotions, I'm careful not to express them.
- 5) When I'm faced with a stressful situation, I make myself think about it in a way that helps me stay calm.
- 6) I control my emotions by not expressing them.
- 7) When I want to feel more positive emotion, I change the way I'm thinking about the situation.
- 8) I control my emotions by changing the way I'm thinking about the situation I'm in.
- 9) When I'm feeling negative emotions, I'm careful not to express them.
- 10) When I want to feel less negative emotion, I change the way I'm thinking about the situation.

## Appendix B

### Perceived Stress Scale (Cohen, Kamarck, & Mermelstein, 1983)

The questions in this scale ask you about your feelings and thoughts during the last month. In each case, you will be asked to indicate *how often* you felt or thought a certain way. Although some of the questions are similar, there are differences between them and you should treat each one as a separate question. The best approach is to answer each question fairly quickly. That is, don't try to count up the number of times you felt a particular way, but rather indicate the alternative that seems like a reasonable estimate.

For each question choose from the following alternative:

0 = Never

1 = Almost Never

2 = Sometimes

3 = Fairly Often

4 = Very Often

- a. In the last month, how often have you been upset because of something that has happened unexpectedly?
- b. In the last month, how often have you felt that you were unable to control the important things in your life?
- c. In the last month, how often have you felt nervous and "stressed"?
- d. In the last month, how often have you dealt successfully with irritating life hassles? (R)
- e. In the last month, how often have you felt that you were effectively coping with important changes that were occurring in your life? (R)
- f. In the last month, how often have you felt confident about your ability to handle your personal problems? (R)
- g. In the last month, how often have you felt that things were going your way? (R)
- h. In the last month, how often have you found that you could not cope with all the things that you had to do?
- i. In the last month, how often have you been able to control irritations in your life? (R)
- j. In the last month, how often have you felt that you were on top of things? (R)
- k. In the last month, how often have you been angered because of things that happened that were outside of your control?
- l. In the last month, how often have you found yourself thinking about things that you have to accomplish?
- m. In the last month, how often have you been able to control the way you spend your time? (R)
- n. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?

(R) denotes reverse scored items

## Appendix B

### Demographic Questionnaire

**Age:**

**Gender:**

**University:**

**Recruitment Source:**

Subject Pool

Flyer

Referral

**Ethnic Background:**

African American

Hispanic/Latino

Asian American/ Pacific Islander

Native American or Alaska Native

Asian Indian or Pakistani

Middle Eastern/ Arab

European American

Bi-Cultural: \_\_\_\_\_

Other: \_\_\_\_\_

**Relationship Status:**

Single

Exclusive Relationship

Married

Divorced

**Sexual Orientation:**

Straight

Lesbian

Bisexual

Unsure

Other: \_\_\_\_\_

**Living Situation:**

Sorority House

Dormitory

Live with spouse or partner

Live with friends or roommate



Live with family  
Live alone

**Year In School:**

Freshman  
Sophomore  
Junior  
Senior  
Other: \_\_\_\_\_

Have you received mental health treatment in the past? No Yes  
If yes, what was the nature of the treatment? Check all that apply.

Inpatient hospital  
Outpatient therapy or counseling  
Psychiatrist  
Psychologist  
Counselor or Social Worker  
Individual Therapy  
Group Therapy  
Family or Couples Therapy  
Emergency Room  
Other \_\_\_\_\_

As a child were you ever physically abused? No Yes  
If yes, were you physically abused by your mother? No Yes  
If yes, were you physically abused by your father? No Yes

As a child were you ever sexually abused? No Yes  
If yes, were you sexually abused by your mother? No Yes  
If yes, were you sexually abused by your father? No Yes

If you were physically or sexually abused as a child by a parent or someone else and the incident has never been reported, you may wish to contact Child and Family Protective Services (or a similar agency if the incident occurred in another state) at 1-800-252-5400. If you choose to make such a disclosure and would like additional support, please contact the UT Counseling and Mental Health Center at (512) 471-3515 or the 24 hour UT Telephone Counseling Hotline at (512) 471-CALL.

**Appendix C**  
**Online Consent Form**  
**and Instructions**

## **Appendix C**

### **[THIS WAS THE FIRST SCREEN PARTICIPANTS SAW WHEN THEY REACHED THE STUDY WEBSITE]**

#### **INFORMATION ABOUT THIS STUDY**

You are being asked to participate in a research study. This study is divided into two parts. Most participants will only be involved in Part I of the study. During Part I, all participants will complete an online survey. Based on your responses to the survey questions you may or may not be eligible to participate in a subsequent part of this research study. Further details about the second part of the study, including eligibility requirements for participation and procedures for indicating interest in participation, will be offered upon completion of Part I. If you are eligible and indicate interest in Part II, you may be invited to participate in the second part of the study. Participation in both parts of this study is entirely voluntary and you can refuse to participate without penalty or loss of benefits to which you are otherwise entitled.

By clicking the NEXT icon below you will be taken to a consent form for Part I of this study. Once you have read through the consent pages you will be asked to indicate your agreement to participate. You will also have the option of printing a copy of the consent form or requesting that a copy be emailed to you for your reference. If you have questions about this study you would like to discuss prior to participation please contact the Principal Investigator (the person in charge of this research) at the number provided on the following pages before deciding whether or not to take part. You should be aware that some of the questions that will be asked of you are quite sensitive. You are therefore advised to complete this study in a private place where others cannot view the questions or your responses.

## Appendix C

### Informed Consent to Participate in Research The University of Texas at Austin Online Study

**Title of Research Study:** Self-Harm Behavior in College Students

**Principal Investigator:** Emily Ray, Doctoral Student, Dept. of Educational Psychology

**Faculty Sponsors:**

Ricardo Ainslie, Ph.D., Professor, Department of Educational Psychology

Alissa Sherry, Ph.D., Assistant Professor, Department of Educational Psychology

**Contact Information:** eraystudy@yahoo.com, (512) 699-8105

**Purpose:** The purpose of this study is to understand the relationship between personality dynamics/life experiences in college age women who engage in self-harm behavior and those who do not. A maximum of 400 students will participate in this study.

**Procedures:**

- Should you decide to participate, you will be asked to provide some demographic information and complete five self-report measures on a web-based research site.
- Make sure you are in a private, comfortable place where you can answer these questions honestly.
- When you come to the end of a page simply click on the NEXT icon to be led through the survey.
- At the end of the survey be sure to follow directions carefully to ensure that you receive the appropriate credit for your participation. If you have any questions regarding this survey or if you experience any technical difficulties please email eraystudy@yahoo.com.

**Time:** The time it takes to complete this survey will vary, but should take no more than 45 minutes to one hour.

**Risks:** Some of the questions you will be asked are personal in nature and concern your private thoughts, feelings, and behaviors. Taking the time to reflect upon these questions may elicit discomfort and bring into consciousness uncomfortable thoughts and feelings. Specifically, this survey will be asking you about your experiences with various self-harm behaviors, your attitudes about your relationship with your parents and your relationships in general, your attitudes about your body, and the ways in which you respond to stress and express your feelings. If you complete this survey in an environment where others are able to glance at your responses, you may put yourself at risk for negative social consequences. Therefore, it is strongly recommended that you complete this survey in a private setting. At any time, you may decide not to answer specific questions or may terminate the study. If you wish to discuss the information above or any other risks you may experience, you may call the Principal Investigator at the number listed.

For some individuals the questions being asked may elicit discomfort that persists beyond the time-frame of this study. This is a research study and treatment will not be provided. The following services are available to help alleviate any discomfort you might experience as a result of participation:

UT Counseling and Mental Health Center, (512) 471-3515

UT 24 Hour Telephone Counseling Hotline, (512) 471-CALL

211 Texas

1-800-DONTCUT

[contact information for other participating university counseling centers was also included here]

**Benefits:** While personal benefits of participating may be minimal, each participant is helping to further understanding of an important and often misunderstood behavior.

**Cost:** There is no cost for participation in this study.

**Compensation:** You will receive no compensation for participating in this study other than class credit to fulfill your research requirement or the chance to win a cash prize if you are not a subject pool participant.

**What if you are injured because of the study?** There is no likelihood of physical injury with participation in this study.

**If you do not want to take part in this study, what other options are available to you?** Your participation in this study is entirely voluntary. You are free to refuse to be in the study, and your refusal will not influence current or future relationships with The University of Texas at Austin. If you decide you do not wish to participate in this study, please consult with the subject pool coordinator for alternative ways to satisfy your research requirements.

**How can you withdraw from this research study and who should you call if you have questions?** If you wish to stop your participation in this research study for any reason, you should contact: Emily Ray at (512) 699-8105. You should also call the principal investigator for any questions, concerns, or complaints about the research. You are free to withdraw your consent and stop participation in this research study at any time without penalty or loss of benefits for which you may be entitled. Throughout the study, the researcher will notify you of new information that may become available and that might affect your decision to remain in the study.

In addition, if you have questions about your rights as a research participant, or if you have complaints, concerns, or questions about the research, please contact Lisa Leiden, Ph.D., Chair, The University of Texas at Austin Institutional Review Board for the Protection of Human Subjects, (512) 471-8871. You may also contact the Office of Research Compliance and Support at [orsc@uts.cc.utexas.edu](mailto:orsc@uts.cc.utexas.edu).

**Confidentiality and Privacy Protections:** Your responses to Part I of the study will remain confidential. You will be asked to submit your email address when you finish the survey in order to receive credit for your participation. A document with your email address and corresponding survey identification number, however, will be stored separately from your survey responses to ensure your confidentiality.

You are strongly encouraged to complete this survey in a private area where others cannot view your responses. All information gathered during Part I of this study will remain confidential and will only be viewed by the researcher. All documents, databases, and materials associated with this study will be password protected and stored in a locked file accessible only to the researcher. If the results of this research are published or presented at professional meetings, your identity will not be disclosed.

At the end of Part I you will receive more information about Part II of this study. If you are interested in Part II you will be asked to submit your name and contact information. By doing this, you will be permitting the researcher to review your responses to Part I to ensure your eligibility for Part II and to contact you about participating in Part II. Steps taken to ensure your privacy and confidentiality as a participant as well as the confidentiality of the research data for those who participate in Part II will be outlined in a subsequent consent form.

If in the unlikely event it becomes necessary for the Institutional Review Board to review your research records, then the University of Texas at Austin will protect the confidentiality of those records to the extent permitted by law. Your research records will not be released without your consent unless required by law or a court order. The data resulting from your participation may be made available to other researchers in the future for research purposes not detailed within this consent form. In these cases, the data will contain no identifying information that could associate you with it, or with your participation in any study.

**Will the researcher benefit from your participation in this study?** There is no benefit to the researcher for your participation in this study beyond publishing or presenting the data.

By clicking the NEXT icon below you are indicating your consent to the above procedures and acknowledge you have been informed about this study's purpose, procedures, possible benefits and risks. You are also acknowledging that you are voluntarily agreeing to participate in this study and are not waiving any of your legal rights. Please note that in order to receive credit or be entered into the raffle, you **MUST** follow the instructions on the last page of this survey. If you wish to print a copy of this consent form for your records you may do so now. If you are unable to print at this time, you may request a copy of this consent form by emailing [eraystudy@yahoo.com](mailto:eraystudy@yahoo.com)

If you have any questions about the consent form or do not wish to participate, please contact the principal investigator of this study and **DO NOT** take this survey.

## Appendix C

### **[THIS SCREEN APPEARED ONCE PARTICIPANTS COMPLETED ALL THE QUESTIONNAIRES IN PART I]**

Thank you for your participation in Part I of this research study!

The following referral sources are available if you would like to speak with someone about your reactions to the content of this study or if you would like more information about self-harm behavior:

UT Counseling and Mental Health Center, (512) 471-3515  
UT 24 Hour Telephone Counseling Hotline, (512) 471-CALL  
211 Texas  
1-800-DONTCUT

[contact information for other participating university counseling centers was also listed here]

### **IMPORTANT INFORMATION BELOW!**

To complete this study, please type your email address in the space provided below. By doing this, the researcher will be able to give you research credit if you are a subject pool participant or enter your name in the raffle drawing if you are a non-subject pool participant. If you are a subject pool participant, be sure to use the same email address you gave when you registered for the EDP subject pool. When you type your email address below, it will be entered into a separate data file from your responses to Part I of this survey. Your answers to the survey will remain confidential.

Email address: \_\_\_\_\_

Information about Part II of this study is offered on the next page. To be eligible for participation in Part II, you must be someone who has engaged in self-harm behavior during your college years. All participants who are selected for Part II of the research study will receive a gift certificate for their participation. For more details about Part II click the SUBMIT AND CONTINUE icon.

If you are not eligible or do not wish to participate in Part II, click the FINISH icon to exit this survey.

**ALL PARTICIPANTS MUST BE SURE TO TYPE THEIR EMAIL ADDRESS IN THE SPACE ABOVE WHEN THEY HAVE FINISHED PART I IN ORDER TO RECEIVE CREDIT FOR THIS STUDY!!!**

## Appendix D

Table D1

*Sample of Responses to DSHI Item 17*

---

Have you done anything else to hurt yourself that was not asked about in this questionnaire?

- Took 45 Tylenol pills and ended up in the hospital.
- Flung my body, whatever part, into the walls.
- Around age 10 I attempted to break my wrist, but only sprained it. I also used to try to make myself sick (from ages 8 – 10) by sleeping with my window open and a wet washcloth on my pillow.
- If you count smoking as self-destructive behavior, then yes.
- I wrecked my car.
- Hit wrist with something hard like phone or brush.
- Punched myself in the stomach for fear of pregnancy – no bruises.
- I pop rubber bands on my wrists, dig my nails into my skin, and exercise excessively.
- Punch or kick walls.
- Made myself throw up.
- Starved myself.
- Hyperventilate in order to pass out.
- I have bumps on my skin that I squeeze to get out what's inside, but I can't stop until they bleed and I rarely let the scabs heal before I pick them some more.
- Burned myself with a hot iron and with a knife heated by a flame.
- Tried to brand myself with hot metal.
- Rubbed a combination of salt and ice onto my skin in order to create a sort of chemical burn.
- Bit all my fingernails off until they bled.
- Pulled out hair.
- Tweezed hairs in such a manner that it bled every time.
- Over scrubbing body and face with body cleansers to point of being slightly raw.
- Pinch myself to the point of bruising.
- Slap myself in the face.
- Scald self with hot water.
- Clench my fists so hard it bleeds.
- Before I even started cutting myself I would swallow and eat things that I knew would make me sick, like shampoo.



## Appendix E

Table E1  
Correlations Among Predictor Variables ( $N = 261$ )<sup>†</sup>

	Mother Care	Mother Protect	Father Care	Father Protect	Separation Anxiety	Engulfment Anxiety	DepDenial	BodyFeel	Body Touch
MotherCare	1	.304 **	.442 **	.183 **	-.310 **	-.300 **	-.417 **	.377 **	.276 **
MotherProtect	.304 **	1	.190 **	.506 **	-.400 **	-.661 **	-.248 **	.346 **	.102
FatherCare	.442 **	.190 **	1	.306 **	-.328 **	-.321 **	-.354 **	.350 **	.195 **
FatherProtect	.183 **	.506 **	.306 **	1	-.226 **	-.543 **	-.186 **	.258 **	.139 *
SepAnx	-.310 **	-.400 **	-.328 **	-.226 **	1	.454 **	.460 **	-.500 **	-.271 **
EngAnx	-.300 **	-.661 **	-.321 **	-.543 **	.454 **	1	.285 **	-.325 **	-.147 *
DepDenial	-.417 **	-.248 **	-.354 **	-.186 **	.460 **	.285 **	1	-.390 **	-.572 **
BodyFeel	.377 **	.346 **	.350 **	.258 **	-.500 **	-.325 **	-.390 **	1	.293 **
BodyTouch	.276 **	.102	.195 **	.139 *	-.271 **	-.147 *	-.572 **	.293 **	1
BodyCare	.266 **	.167 **	.270 **	.093	-.263 **	-.165 **	-.344 **	.300 **	.314 **
BodyProtect	.080	.178 **	.183 **	.187 **	-.163 **	-.274 **	-.198 **	.144 *	.018
Reappraise	.266 **	.142 *	.163 **	.056	-.293 **	-.132 *	-.307 **	.279 **	.273 **
Suppress	-.240 **	-.153 *	-.271 **	-.045	.341 **	.238 **	.508 **	-.290 **	-.399 **
Stress	-.324 **	-.364 **	-.338 **	-.294 **	.605 **	.390 **	.505 **	-.489 **	-.339 **

<sup>†</sup>  $N = 260$  for Father Care, Father Protection, and Stress

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

## Appendix E

Table E1 continued  
Correlations Among Predictor Variables ( $N = 261$ )<sup>†</sup>

	Body Care	Body Protect	Reappraise	Suppress	Stress
MotherCare	.266 **	.080	.266 **	-.240 **	-.324 **
MotherProtect	.167 **	.178 **	.142 *	-.153 *	-.364 **
FatherCare	.270 **	.183 **	.163 **	-.271 **	-.338 **
FatherProtect	.093	.187 **	.056	-.045	-.294 **
SepAnx	-.263 **	-.163 **	-.293 **	.341 **	.605 **
EngAnx	-.165 **	-.274 **	-.132 *	.238 **	.390 **
DepDenial	-.344 **	-.198 **	-.307 **	.508 **	.505 **
BodyFeel	.300 **	.144 *	.279 **	-.290 **	-.489 **
BodyTouch	.314 **	.018	.273 **	-.399 **	-.339 **
BodyCare	1	.088	.373 **	-.331 **	-.338 **
BodyProtect	.088	1	-.044	-.196 **	-.154 *
Reappraise	.373 **	-.044	1	-.129 *	-.444 **
Suppress	-.331 **	-.196 **	-.129 *	1	.342 **
Stress	-.338 **	-.154 *	-.444 **	.342 **	1

<sup>†</sup>  $N = 260$  for Father Care, Father Protection, and Stress

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

**Appendix F**  
**Factor Analysis:**  
**Additional Output**

## Appendix F

Figure F1  
*Scree Plot*

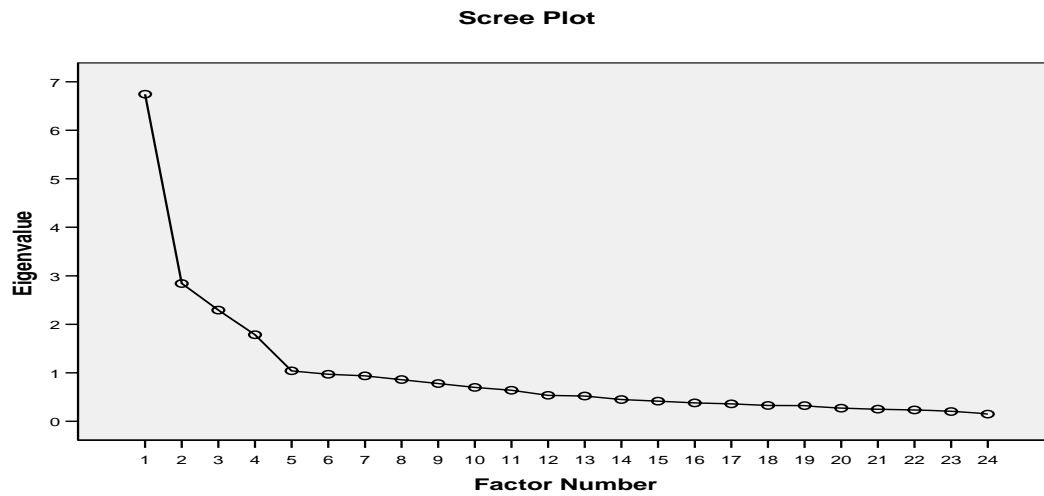


Table F2  
*Factor Correlation Matrix for Five Factor Solution*

Factor	1	2	3	4	5
1	1.000	.291	.189	.174	-.342
2	.291	1.000	.243	-.019	-.300
3	.189	.243	1.000	.055	-.468
4	.174	-.019	.055	1.000	-.103
5	-.342	-.300	-.468	-.103	1.000

## Appendix F

Table F3  
*Rotated Factor Loadings, Five Factor Solution*

	Factor				
	1	2	3	4	5
bis10	.880				
bis5	.857				
bis13	.856				
bis16	.811				
bis21	.724				
bis17	.689				
bis6		.848			
bis2		.800			
bis11		.743			
bis20		.637			
bis9		.623			
bis23		.571			
bis4					
bis1			.791		
bis14			.760		
bis7				.805	
bis3				.742	
bis18				.305	
bis15					-.573
bis24					-.547
bis22					-.473
bis8					-.382
bis19					-.341
bis12					

\* Factor loadings < .3 0 not shown.

## Appendix F

Table F4  
*Rotated Factor Loadings, Three Factor Solution*

	Factor		
	1	2	3
bis10	.852		
bis5	.844		
bis13	.838		
bis16	.774		
bis17	.709		
bis21	.708		
bis12			
bis6		.790	
bis2		.753	
bis11		.731	
bis20		.638	
bis9		.626	
bis23		.561	
bis14			.731
bis15			.659
bis1			.593
bis24			.589
bis22	.306		.446
bis8			.420
bis18			.399
bis19			.393
bis4		.302	.348
bis3			.304
bis7			

\*Factor loadings < .30 not shown.

Table F5  
*Factor Correlation Matrix, Three Factor Solution*

Factor	1	2	3
1	1.000	.184	.372
2	.184	1.000	.241
3	.372	.241	1.000

## Appendix G

*Output for Logistic Regression Analysis II Using Transformed Comfort in Touch Variable (N = 260)*

### Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
Step 1	Step	61.947	7	.000
	Block	61.947	7	.000
	Mode 1	61.947	7	.000

### Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95.0% C.I. for EXP(B)	
								Lower	Upper
Step 1(a)	bimage	-.292	.171	2.927	1	.087	.747	.534	1.043
	btouch - lnx	-.087	.103	.722	1	.396	.916	.749	1.121
	bcare	-.651	.319	4.176	1	.041	.522	.279	.974
	bprot	-.605	.160	14.277	1	.000	.546	.399	.747
	reapprais	.025	.152	.027	1	.869	1.025	.761	1.382
	suppress	.173	.129	1.809	1	.179	1.189	.924	1.529
	stress	.639	.320	3.997	1	.046	1.895	1.013	3.546
	Constant	3.530	1.999	3.118	1	.077	34.139		

**Appendix H**  
**Interview Cover Letter**  
**and Consent Form**



## **Appendix H**

**[THIS SCREEN APPEARED IF PARTICIPANTS CLICKED THE “SUBMIT AND CONTINUE” ICON AFTER COMPLETING PART I OF THE STUDY]**

### **INFORMATION ABOUT PART II OF THIS STUDY**

This page provides additional information about Part II of this research study to help you decide if you are interested in participating. The second part of this study will involve in-person, individual interviews with women who endorse engaging in deliberate self-harm behavior at some time during their college years. The purpose of the interviews is to allow participants to discuss their experiences with self-harm in their own words and to help the researcher understand the personal meaning of this behavior. All interviews will be conducted by the Principal Investigator and will be scheduled prior to the end of the Fall 2006 semester at each participant's convenience. The interviews will last approximately 45 minutes to one hour. With each participant's permission, the interviews will be audiotaped, but audiotaping is not required for participation. Eligible individuals who are selected and complete an interview will receive a \$25 gift certificate.

### **HOW DO I KNOW IF I AM ELIGIBLE FOR PART II?**

For the purpose of this study, self-harm is defined as the deliberate infliction of harm to the body without suicidal intent. This includes a variety of behaviors, such as self-cutting, burning, carving, scratching, biting, hitting, head banging, and sticking one's skin with sharp objects, among other similar types of self-injury. To be eligible for an interview, you must be someone who has engaged in this type of behavior during your college years.

### **HOW DO I INDICATE INTEREST IN PART II?**

If you meet the eligibility requirements and are interested in participating in an interview, please type your name in the space provided below. Please include your phone number and email address, and indicate your preferred method of communication. By typing this information, you are giving the researcher permission to contact you to schedule an interview. You are also giving the researcher permission to review your responses to the survey questions in Part I of this study to ensure your eligibility.

The researcher aims to conduct between 6 to 8 individual interviews. Because more individuals may indicate interest in an interview than slots allotted, it is possible you may not be contacted for an interview. The researcher will assess your eligibility for an interview by reviewing your responses to Part I of this study and then randomly select eligible participants for an interview. In the event that you are not contacted, but still wish to discuss your experiences, you may visit the UT Counseling and Mental Health Center free of charge. To schedule an appointment at the Counseling Center call: 471-3515. The following crisis and information services are also available:

UT 24 Hour Telephone Counseling Hotline, (512) 471-CALL  
211 Texas  
1-800-DONTCUT

[contact information for other participating university counseling centers was included here]

### **CONFIDENTIALITY**

When you indicate interest in Part II by typing your name and contact information, you will be assigned a numerical code that will be placed on the survey you completed for Part I of the study. Once your code is assigned, the identifying information you provided in Part I will be deleted from your survey. A document linking your name and contact information to your number code will be kept separately from your survey in a locked file drawer available only to the Principal Investigator. This document will be destroyed at the end of the study. Further details about procedures for ensuring your confidentiality throughout the interview process will be explained in person. You will also have an opportunity to give your full informed consent or to decline participation in person as well. Your participation in an interview is entirely voluntary and you can stop this study at any time.

### **WHAT DO I DO NEXT?**

If you would like to be considered for an interview, please type your name and contact information below and click the FINISH icon to exit this survey. If you are not interested in participating in an interview, leave this space blank and click the FINISH icon to exit this survey. If you are unsure if you are interested in an interview and have further questions, please contact Emily Ray, Principal Investigator, at (512) 699-8105 or [eraystudy@yahoo.com](mailto:eraystudy@yahoo.com).

Name:  
Phone Number:  
Email Address:  
Preferred Method of Contact:

If you indicate interest in an interview but are not selected and would like an email informing you of this fact, please indicate so by checking the box below.

## **Appendix H**

### **INFORMED CONSENT TO PARTICIPATE IN RESEARCH The University of Texas at Austin Interview**

You are being asked to participate in a research study involving a live interview. This form provides you with information about the study. The Principal Investigator (the person in charge of this research) will provide you with a copy of this form to keep for your reference and will also describe this study to you and answer all of your questions. Please read the information below and ask questions about anything you do not understand before deciding whether or not to take part. Your participation is entirely voluntary and you can refuse to participate without penalty or loss of benefits to which you are otherwise entitled.

**Title of Research Study:** Self-Harm Behavior in College Students

Principal Investigator: Emily Ray, Doctoral Student, Ed. Psychology, (512) 699-8105

Faculty Sponsors:

Ricardo C. Ainslie, Ph.D., Professor, Educational Psychology, (512) 471-0364

Alissa R. Sherry, Ph.D., Assistant Professor, Educational Psychology, (512) 471-0372

**What is the purpose of this study?**

The purpose of this study is to understand the relationship between personality dynamics/life experiences and self-harm behavior in college age women. During Part I of this study (which consisted of an online survey) a maximum of 400 students were expected to participate. Only

6 to 8 students will participate in Part II of this study, which involves an interview. The purpose of the interviews is to learn from women who engage in self-harm about what this behavior means to them.

**What will be done if you take part in this research study?**

Should you choose to participate in the interview, you will be asked to discuss your experience with self-harm. The principal investigator may ask you some questions about this behavior, but will also allow you to discuss the aspects of this behavior that are most relevant for you. With your permission, the interview will be audiotaped. The interview will take no more than one hour. You may choose to stop your participation at any time. Your participation is voluntary and you are not required to answer any questions you do not want to.

**What are the possible discomforts and risks?**

There is a possibility of experiencing emotional distress while discussing your experiences in the interview. For some participants, the discussion may bring into

awareness uncomfortable thoughts or feelings. Specifically, the researcher will ask you to discuss your reasons for engaging in self-harm, to describe a specific incident of this behavior, and to discuss what you would like others to understand about self-harm. The researcher may also refer to your responses from the questionnaires in Part I of this study and ask you to consider how such responses may or may not be related to self-harm behavior. At any time, you may decide not to answer specific questions or may terminate the study. If you wish to discuss the information above or any other risks you may experience, you may ask questions of the Principal Investigator at any time during this interview session.

This is a research study and treatment will not be provided. If the questions being asked elicit discomfort that persists beyond the time-frame of the interview, you are encouraged to utilize mental health resources. The following services are available to help alleviate any discomfort you might experience as a result of participation:

UT Counseling and Mental Health Center, (512) 471-3515  
UT 24 Hour Telephone Counseling Hotline, (512) 471-CALL  
211 Texas  
1-800-DONTCUT

**What are the possible benefits to you or to others?** While personal benefits of participating may be minimal, each participant is helping to further understanding of an important and often misunderstood behavior.

**If you choose to take part in this study, will it cost you anything?** There is no cost for participation in this study.

**Will you receive compensation for your participation in this study?** You will receive a \$25 gift certificate for participating in this study.

**What if you are injured because of the study?** There is no likelihood of physical injury with participation in this interview.

**If you do not want to take part in this study, what other options are available to you?** Your participation in this study is entirely voluntary. You are free to refuse to be in the study, and your refusal will not influence current or future relationships with The University of Texas at Austin.

**How can you withdraw from this research study and who should you call if you have questions?** If you wish to stop your participation in this research study for any reason, you may let the researcher know. You may also call the principal investigator for any questions, concerns, or complaints about the research at (512) 699-8105. You are free to withdraw your consent and stop participation in this research study at any time without penalty or loss of benefits for which you may be entitled. Throughout the study, the researcher will notify you of new information that may become available and that might affect your decision to remain in the study.

In addition, if you have questions about your rights as a research participant, or if you have complaints, concerns, or questions about the research, please contact Lisa Leiden, Ph.D., Chair, The University of Texas at Austin Institutional Review Board for the Protection of Human Subjects, (512) 471-8871. You may also contact the Office of Research Compliance and Support at [orsc@uts.cc.utexas.edu](mailto:orsc@uts.cc.utexas.edu).

**How will your privacy and the confidentiality of your research records be protected?** You have previously given the researcher permission to review your responses from Part I of the online survey to determine your eligibility for an interview. To ensure your confidentiality, the researcher has assigned a numerical code to all your documents related to this study. A document linking your name to your number code will be kept separately in a locked file drawer available only to the Principal Investigator. This document will be destroyed at the completion of this study. All data collected during the interview will also remain confidential. If you agree to have your interview session audiotaped, your tape will be labeled with your number code so that no personally identifying information will be visible on it. Interview tapes will be kept in a locked cabinet in the Principal Investigator's office and will be used only by the Principal Investigator for the purposes of this study. All tapes will be destroyed at the completion of the study. If the results of this research are published or presented at professional meetings, your identity will not be disclosed. All interviews will be conducted in a private room to further ensure your confidentiality.

While every effort will be made to ensure your confidentiality, there are circumstances under which your confidentiality may be broken and a report to the appropriate authoritative body must be made for your own protection or the protection of others. These circumstances are outlined below and will also be explained to you by the researcher. You will have a chance to ask any questions you may have before beginning the interview.

As required by the ethical standards in psychology and Texas law, please note the following exceptions to confidentiality:

- If your questionnaire responses from Part I or your responses to this interview indicate that you are in imminent danger of harming yourself or someone else.
- If you disclose the physical, sexual, emotional abuse or neglect of a minor, a dependent, or a person aged 65 or over. This may apply to you, your children, parents or other individuals identified during the interview.
- If you disclose that a therapist has behaved in a sexually inappropriate manner towards you your identity may be revealed and a report to the licensing board and possibly to law enforcement must be filed outlining the offending therapist's behavior.

If in the unlikely event it becomes necessary for the Institutional Review Board to review your research records, then the University of Texas at Austin will protect the confidentiality of those records to the extent permitted by law. Your research records

will not be released without your consent unless required by law or a court order. The data resulting from your participation may be made available to other researchers in the future for research purposes not detailed within this consent form. In these cases, the data will contain no identifying information that could associate you with it, or with your participation in any study.

**Will the researchers benefit from your participation in this study?** There are no benefits to the researcher for your participation in this study beyond publishing or presenting the data.

Signatures:

As a representative of this study, I have explained the purpose, the procedures, the benefits, and the risks that are involved in this research study:

---

Signature and printed name of person obtaining consent	Date
--	------

You have been informed about this study's purpose, procedures, possible benefits and risks, and you have received a copy of this form. You have been given the opportunity to ask questions before you sign, and you have been told that you can ask other questions at any time. You voluntarily agree to participate in this study. By signing this form, you are not waiving any of your legal rights.

---

Printed Name of Subject	Date
-------------------------	------

---

Signature of Subject	Date
----------------------	------

If you agree to have your interview audiotaped, please sign below:

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Signature of Subject	Date
----------------------	------

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Signature of Principal Investigator	
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## **Appendix I**

### **Sample Interview Questions**

1. Describe a specific instance of the behavior in detail in a way that would let someone else know what this experience was like for you.
2. Describe how you felt before, during, and after this incident or other incidents.
3. Describe the first time you engaged in this behavior. What did you do and what was going on in your life that might have influenced your behavior?
4. Has the behavior and your feelings about it changed over the years?
5. What are some things you would like others to understand about this behavior? What do you think others just don't seem to understand about this behavior?
6. Is there anything specific about the transition to college or college life itself that has influenced your behavior?
7. How have others in your personal life and professionals you've been in contact with reacted to the behavior? What has been the most/least helpful response?
8. Is there anything you haven't yet discussed or I haven't asked that you feel is important to share about your experience or this behavior in general?

## Appendix J

### Interview Matrix

Participant #/Alias			
Age/Year in School			
Age first SM			
Type SM			
SM tools			
Location on body			
Initiation			
Course of SM			
Feelings about SM			
Triggers			
Physical symptoms or experiences related to SM			
Experience and feeling about physical pain			
SM scars			
Feeling after SM			
Others who knew			
Treatment experiences			
College			
Functions of SM			
Interpersonal relationships			
Family background			
Myths about SM			
Future			
Miscellaneous			



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